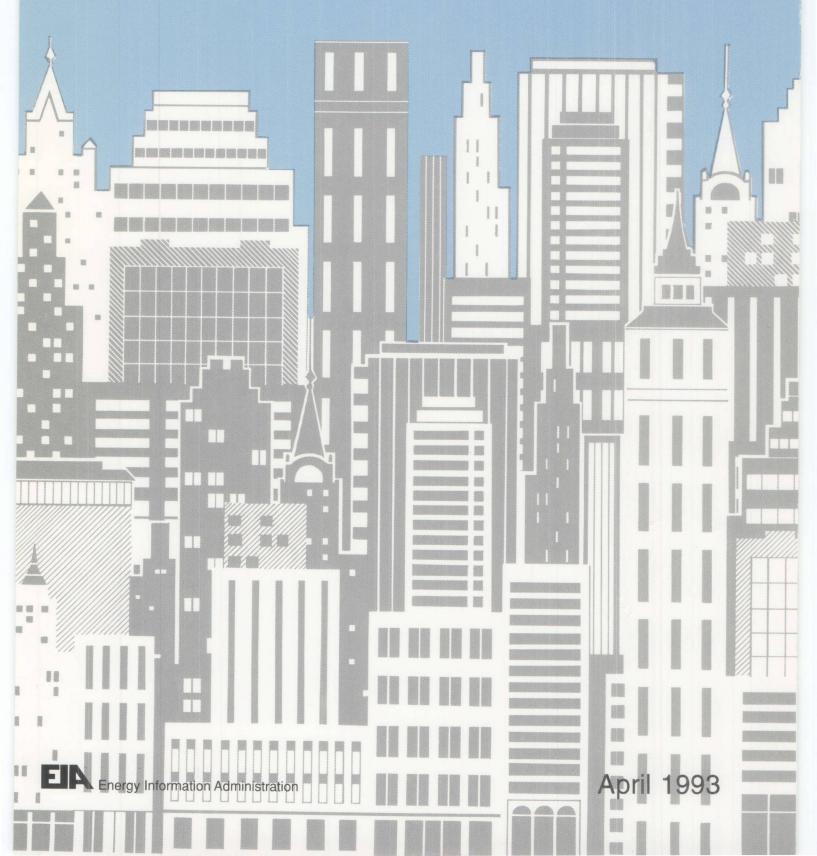
Profiles of Foreign Direct Investment in U. S. Energy 1991



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Profiles of Foreign Direct Investment in U.S. Energy 1991

April 1993

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Office of Energy Markets and End Use
U.S. Department of Energy
Washington, DC 20585

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Preface

In accordance with Section 205(h)(5) of the U.S. Department of Energy Organization (DOE) Act, the Energy Information Administration (EIA) prepares an annual report for the Secretary of Energy and for transmittal to Congress. This report summarizes the activities in the United States by foreign-affiliated companies that own or control U.S. energy sources and supplies.

The following profiles for 1991 are presented:

 Foreign direct investment in U.S. petroleum, including natural gas, and coal mining.

- Energy production, processing, distribution, and reserves of foreign-affiliated companies.
- Financial performance and investment activity of foreign-affiliated energy companies.
- Overseas petroleum operations of U.S. companies.
- Comparisons of foreign-affiliated companies with U.S. energy companies.

The information contained in this report is intended for use by the Congress, government agencies, energy industry analysts, international trade and finance analysts, and the general public.

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Executive Summary

Profiles of Foreign Direct Investment in U.S. Energy 1991 describes the role of foreign ownership in U.S. energy enterprises, with respect to investment, energy operations, and financial performance. Additionally, since energy investments are made in a global context, outward investment in energy is reviewed through an examination of U.S.-based companies' patterns of investment in foreign petroleum. The data used in this from the Energy Information report come Administration (EIA), the U.S. Department of Commerce, company annual reports, and public disclosures of investment transactions.

Foreign companies, through their U.S.-based affiliates, play a significant role in U.S. energy production and processing. For example, in 1991, foreign-affiliated companies accounted for 16 percent of U.S. oil production, 8 percent of U.S. natural gas production, 24 percent of U.S. coal production, 27 percent of U.S. refining capacity, and 32 percent of U.S. refiners' sales of gasoline. The investment patterns of foreign-affiliated energy companies thus provide important indicators of targets of opportunity in U.S. energy. Also, the roles of foreign-affiliated companies continue to raise a variety of concerns about the extent and composition of foreign ownership of the United States' energy production capabilities.

In 1991, weak economic performance both in the United States and in several industrialized countries had a negative effect on overall foreign direct investment in the United States. Foreign investors' interest in the U.S. petroleum industry (including natural gas production) was further reduced by lower oil and gas prices and another poor year for the profitability of U.S. refining/marketing operations. However, U.S. coal production was a target of European investors in 1990 and 1991. This renewed interest in U.S. coal assets was in part due to the impending structural changes in

European coal production attending the economic integration of the European Community nations. Highlights of this report are given below.

Foreign Direct Investment

Measured by net investment flows, foreign investor interest in U.S. energy and U.S. industry overall declined in 1991. For all industries (energy and nonenergy), additions to the foreign direct investment position (FDI)¹ fell to the lowest level since 1984, from \$27.8 billion in 1990 to \$10.9 billion in 1991, after averaging \$46 billion for the prior four years. Reduced economic activity in the United States discouraged acquisitions and expansions by foreign investors and weak growth together with restructurings of the banking sector in several industrialized nations reduced the availability of investible funds.

Additions to FDI in U.S. petroleum (including natural gas production)² turned to a negative \$2.2 billion in 1991, the lowest level since at least 1981. Repayment to foreign parent companies of debts incurred in earlier acquisitions plus divestitures of foreign ownership of oil and gas production enterprises outweighed new acquisitions of U.S. petroleum assets to produce this result. The petroleum share of overall FDI fell to 10 percent in 1991, the lowest level since 1974.

Acquisitions and Divestitures of U.S. Energy Assets

The value of petroleum-related acquisitions of U.S. petroleum operations by foreign affiliates was just about matched by the value of divestitures in 1991. Foreign affiliate acquisitions of petroleum assets fell

¹The Foreign direct investment position (FDI) is the cumulative net flow of funds between a foreign-affiliated company and its foreign owners. The U.S. Department of Commerce, the agency that collects data on FDI, measures FDI as the book value of foreign direct investors' equity in and net outstanding loans to their U.S. affiliates. The Department of Commerce defines a U.S. affiliate as a U.S. business enterprise in which one foreign direct investor owns 10 percent or more of the voting securities or the equivalent.

²Enterprises classified as petroleum operations (including natural gas) and coal mining account for 95 percent of all energy-related FDI in the United States, which amounted to \$43.0 billion in 1991. The U.S. Department of Commerce classifies uranium mining in the "other metallic ores" industry. The value of FDI in the industry classification, "electric, gas, and sanitary services," which includes gas and electric utilities, amounted to 5 percent of FDI in U.S. energy.

from \$1.9 billion in 1990 to \$1.1 billion in 1991 mainly because there was only one major acquisition in U.S. refining/marketing in 1991. This single acquisition had a value of only \$100 million, compared with 8 acquisitions in U.S. refining/marketing in 1990, totaling \$1.0 billion. The recent steep slide in U.S. refining profitability was a deterrent to further foreign investment in this line of activity. Petroleum-related transactions in 1991 with a value of \$100 million or more included:

- BHP of Australia spent \$530 million to acquire the remaining 49.9 percent of Hamilton Oil it did not own.
- European-controlled Capercaille Holdings acquired a 38-percent ownership in Reading and Bates, a drilling services company, for \$176 million.
- Conoco, a subsidiary of E.I. du Pont de Nemours (24 percent owned by Canadian interests), acquired oil and gas properties in New Mexico's San Juan Basin for \$163 million.
- Citgo Petroleum, a subsidiary of Petroleos de Venezuela, acquired the remaining 50-percent interest in Seaview Petroleum and their 44,000 barrels per day New Jersey refinery for \$100 million.
- Shell Oil, 100-percent owned by Royal Dutch/Shell Group, sold their 125,000 barrels per day Wilmington, California refinery to Unocal for a reported \$400 million.
- BP America, 100-percent owned by British Petroleum, sold their TEX/CON Oil and Gas subsidiary to Pacific Gas and Electric for \$400 million.
- Sunshine Mining, a minerals company, sold their U.S. oil and gas properties to Sonat for \$150 million.

The largest transaction in U.S. energy in 1991 by a foreign investor was the acquisition of a 50-percent share of the Consol Energy joint venture for a reported \$570 million by RWE AG of Germany. Consol Energy was formed from Du Pont's Consolidation Coal unit, with Du Pont retaining a 50-percent stake. Consol Energy is the second largest producer of U.S. coal. Peabody Holding Company, the largest U.S. coal producer, was acquired by Hanson PLC of the United Kingdom for \$1.2 billion in 1990. Both Germany and the United Kingdom are expected to substantially restructure their coal industries as part of their obligations to the European Community. The

restructurings will eliminate some of their coal production capacity through the closing of submarginal mining operations and, thereby, create opportunities for the importation of U.S. coal.

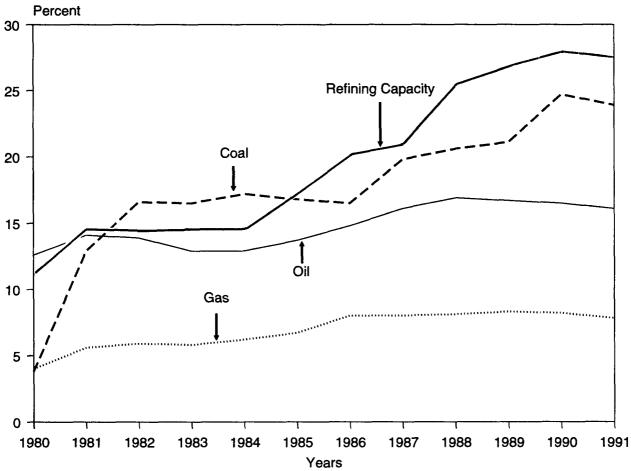
U.S. Energy Operations

The foreign affiliates' shares of U.S. energy activities dipped slightly in 1991 (Figure ES1), reflecting divestitures and the low level of acquisitions. Shell Oil's refinery sale was the source of the decline in the foreign affiliates' share of refinery capacity, from 28 percent in 1990 to 27 percent in 1991. Foreign affiliates' U.S. oil (crude oil and natural gas liquids) production held steady between 1990 and 1991, but overall U.S. production rose 2 percent, resulting in a fractional decline in the foreign affiliates' share. A similar decline occurred in the foreign affiliates' share of natural gas production, as their production declined 6 percent while total U.S. production was essentially unchanged. Figure ES1 indicates a slight drop, to 24 percent in 1991, in foreign affiliates' share of U.S. coal production, despite the acquisition of a 50-percent share in the Consol Energy joint venture. This result was due to the foreign-affiliated status of Du Pont, the other partner in Consol Energy, who was the previous 100-percent owner of the predecessor Consolidation Coal, and some divestitures of coal operations in 1991. Foreign affiliates' interest in U.S. uranium operations in 1991, as measured by their share of exploration and development expenditures, though up slightly from 1990, remained at a reduced level. In 1991, the foreign-affiliated companies' share of U.S. expenditures for uranium exploration and development was 19 percent, far below their 51-percent share in the 1986-1989 period.

Financial Performance

Lower oil and gas prices, reduced refinery margins, and economic decline led to a decrease in the overall profits of U.S. energy producers in 1991 compared with 1990's results. Net income of foreign-affiliated energy companies fell 52 percent between 1990 and 1991 while other U.S. energy companies registered a 32-percent decline. The difference in profit performance was largely attributable to a \$1.0 billion decline in the net income of one of the largest foreign affiliates. Despite the sharp deterioration in bottom-line results in 1991, both groups' capital expenditures and dividend payouts were little changed from the prior year.

Figure ES1. Foreign Affiliates' Share of U.S. Production of Oil, Gas, and Coal, and U.S. Refining Capacity, 1980-1991



Sources: Tables 7, 10, and 12 of Chapter 4 of this report. U.S. Department of Energy, *Annual Report to Congress*, DOE/S-0010(84) (Washington, DC, September 1984). Energy Information Administration, *Profiles of Foreign Direct Investment in the U.S. Energy*, 1983-1990, DOE/EIA-0466 (Washington, DC, 1984-1992).

Direct Investment Abroad

U.S. companies' direct investment position abroad in the petroleum industry, as measured by the U.S. Department of Commerce's international investment surveys, was nearly the same in 1991 as in 1986. However, this apparent lack of dynamism masks the strong shift of major U.S. petroleum companies' exploration and development expenditures from U.S. oil and gas prospects to foreign locales. Based on information contained in EIA's Performance Profiles of Major Energy Producers 1991, the majors' foreign exploration and development expenditures rose by over 80 percent between 1986 and 1991, while their U.S.

exploration and development expenditures declined by nearly 20 percent.

On the downstream side, although the major petroleum companies that own foreign refining and marketing facilities have been consolidating these operations, the retained assets have been targets of investment. Much of this foreign downstream investment has been directed toward upgrading refineries to produce more gasoline, diesel, and other lighter products. Excluding the effects of mergers and acquisitions, the majors' capital expenditures for foreign refining and marketing steadily rose between 1986 and 1991, from \$2.0 billion to \$3.6 billion.

1. Introduction

According to a Congressional report on foreign investment:¹

"The Congress and the Public have expressed serious concerns about the impact and effects of foreign investment in the United States. They are concerned about the possibility that, if the assets or the natural resources of large U.S. firms end up under foreign control, those firms could be operated in ways ultimately harmful to U.S. national interests. These concerns arise out of the reports of foreign takeovers of high technology U.S. firms, acquisitions of U.S. farmland, investment in U.S. banks and government securities, and large foreign purchases of U.S. energy and other natural resources with the concomitant export of these scarce resources. Some of these concerns may be unfounded, but it is self-evident that both the Congress and the public must be fully apprised of the impact and effects of foreign investment to make these judgments."

The above concerns extend specifically to involvement of foreign interests in U.S. energy. The U.S. Department of Energy Organization (DOE) Act (Public Law 95-91)² requires that the Secretary of Energy report to the President for transmittal to Congress:

"... to the extent practicable, a summary of activities in the United States by companies or persons which are foreign owned or controlled and which own or control United States energy sources and supplies, including the magnitude of annual foreign direct investment in the energy sector in the United States"

The Energy Information Administration (EIA) annually prepares a report pursuant to Section 205(h)(5) of the DOE Act. Versions of this report, for years prior to the 1983 reporting year, appeared as Appendix A in the U.S. Department of Energy's Secretary's Annual Report to Congress. Beginning with the 1983 reporting year, the annual report on foreign investment and ownership in U.S. energy has been published by the EIA.

This report reviews the patterns of foreign ownership interest in U.S. energy enterprises, exclusive of portfolio investment.³ Throughout this report such foreign non-portfolio ownership interests in U.S. energy companies are referred to as "foreign direct investment" and the U.S. affiliates in which a foreign entity holds an ownership interest are referred to as "foreign-affiliated" U.S. enterprises or companies.

By definition, "a U.S. affiliate is a U.S. business enterprise in which a single foreign direct investor owns at least 10 percent of the voting securities, or the equivalent." It should be noted that holding 10 percent or more of a company's voting stock does not necessarily constitute control of that company. The determination of control is a complex and often subjective process in which many factors other than the percentage of ownership must be considered.

This report profiles the involvement of foreign-affiliated U.S. companies in the following areas: domestic petroleum production (including natural gas), reserve holdings, refining and marketing activities, coal

1

¹U.S. House of Representatives, Committee on Government Operations, The Adequacy of the Federal Response to Foreign Investment in the United States (August 1980), p. 2.

²Section 657, Subpart 8 of the DOE Act. A report on exports of energy, required by the same legislation, is in the U.S. Department of Energy, *The Secretary's Annual Report to Congress* 1990, DOE/S-0010(91) (Washington, DC, June 1992).

³Foreign ownership of less than 10 percent of a U.S. enterprise is classified as portfolio investment by the U.S. Department of Commerce. ⁴U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* (Washington, DC, June 1992), p. 57. Also, it should be noted that, consistent with its definition, foreign investment activities portrayed throughout this report do not include any foreign investment activities in connection with less than 10 percent ownership, which is known as portfolio investment.

production, and uranium exploration and development. A financial profile of U.S. energy companies that are foreign-affiliated is presented, comparing data for 1990 and 1991. The report reviews recent acquisitions of ownership interests in U.S. energy companies by foreign investors. For the petroleum industry, the report identifies the international composition of ownership, as well as information on the flow of capital and income between foreign owners and the foreign-affiliated companies.

Information on acquisitions of ownership in U.S. energy enterprises was obtained from public disclosures of financial transactions and filings of Form 13-D with the Securities and Exchange Commission. The information on the foreign direct investment position (FDI) in the United States is derived from data published by the U.S. Department of Commerce. The data are obtained from quarterly reports required of foreign-affiliated U.S. enterprises. FDI is the cumulative net flow of funds between a foreign-affiliated company and its foreign owners. These capital flows consist of stock purchases and paid-in capital, retained earnings and other equity, and loans from and to foreign parents.5 Foreign direct investment is a measure of the net flow of capital between the foreign entities and their U.S. affiliates. It should be emphasized that investment flows out of, as well as into, the United States. As is reported in the next chapter, U.S. direct investment in petroleum abroad exceeds petroleum FDI in the United States, although this difference has generally narrowed in recent years.

Recent Developments in Overall Foreign Direct Investment in the United States

Overall additions to FDI in the United States (which includes both energy and nonenergy industries) fell from \$27.8 billion in 1990 to \$10.9 billion in 1991. In 1991, additions to FDI were at their lowest level since 1984. According to the U.S. Department of Commerce, a continued weak U.S. economy which reduced the attractiveness of new investments and expansions, and economic weakness and bank restructurings in several industrialized nations which reduced the availability of funds for investment, largely contributed to the decline in additions to overall FDI in the United States.

At the industry level, much of 1991's decline in additions to FDI was concentrated in the service industries (particularly hotels and motion pictures), although nearly all industrial sectors as well as wholesale and retail trade registered declines.⁷ The areas evidencing an increased pace of additions to FDI were banking and insurance. At the country level, Japan and the Netherlands, which rank second and third to the United Kingdom as foreign direct investors in the United States, registered respective declines of \$9.6 billion and \$7.3 billion in additions to overall FDI in the United States. The largest increase, by far, came from United Kingdom investors. The United Kingdom's increase in FDI additions of \$3.9 billion was almost entirely in U.S. manufacturing, particularly chemicals.

⁵A detailed discussion of FDI data collection and methodology is contained in: "A Guide to BEA Statistics on Foreign Direct Investment in the United States," U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* (Washington, DC, February 1990).

⁶ U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (Washington, DC, June 1992), p. 58.

⁷U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* (Washington, DC, August 1992), pp. 93-95, 111-114.

2. Foreign Direct Investment in U.S. Petroleum and Coal

The most direct indication of foreign investors' targets of investment in U.S. energy is the pattern of their expenditures for acquisitions of U.S. energy assets. The first section of this chapter reviews foreign investors' transactions⁸ related to acquisitions and divestitures of U.S. energy assets in 1991 and in historical context.

The U.S. Department of Commerce publishes annual data on the foreign direct investment position (FDI) for the United States.⁹ The Commerce data are disaggregated by industries and by country of investor and are useful for gauging the importance of energy-related FDI relative to overall FDI and for discerning the geographical sources of FDI in U.S. energy. The second section of this chapter utilizes the Commerce data to review trends in energy-related FDI.

Since much of energy investment is made in a global context, outward investment in energy is reviewed in the last section of this chapter through an examination of U.S.-based companies' patterns of investment in foreign petroleum.

1991 FDI-Related Transactions in U.S. Petroleum and Coal

Lower oil and gas prices in 1991, with their consequent depressing effects on the profitability of U.S. oil and gas production, and a sharp drop in the profitability of U.S. petroleum refining tended to discourage investment in U.S. petroleum operations. Foreign investors and their affiliates in the United States evidenced a reduced interest in U.S. petroleum operations in 1991. The value of foreign affiliates' acquisitions of U.S. petroleum assets totaled \$1.1 billion in 1991, down from \$1.9 billion in 1990 (Table 1). In historical context, the value of FDI-related transactions in U.S. energy fell to a 10-year low in 1991, while additions to FDI plunged to a new low (Figure 1). ¹⁰

The decline in foreign direct investment in petroleum was led by a sharp falloff in acquisitions of refining/marketing operations. Only one major FDI-related acquisition involving downstream U.S. petroleum (refining, marketing, and transport) was reported in 1991: Citgo Petroleum (100-percent owned by the Venezuelan government's Petroleos de Venezuela, SA (PDVSA)) acquired the 50-percent ownership of Seaview Petroleum which they did not previously own, for \$100 million (see Box).

The diminished interest in U.S. refining and marketing in 1991 was in contrast to the 1985-1990 period when foreign acquisitions of downstream assets annually ranged from \$1 billion to \$2 billion (Figure 2). Beginning in 1986, most of the foreign acquisitions of U.S. downstream operations reflected the movement of Venezuelan and Saudi Arabian state energy companies into the U.S. market. Kuwait, Venezuela, and Saudi Arabia, who are all members of the Organization of Petroleum Exporting Countries (OPEC), acquired downstream petroleum assets in industrialized countries in order to integrate their oil production operations with petroleum refining and marketing (vertical integration). Vertical integration tends to moderate income fluctuations stemming from frequent, wide swings in the price of crude oil. Also, assured placement of oil production can be a benefit of vertical integration. Prior to 1991, PDVSA acquired Champlin Petroleum and its refinery in Texas (130,000 barrels per day of crude distillation capacity), Citgo Petroleum and its Louisiana refinery (305,000 barrels per day capacity), and, most recently, Seaview Petroleum with a 44,000 barrels per day refinery in New Jersey. PDVSA is also a 50-percent partner with Unocal Corporation in the Uno-Ven joint venture and its 147,000 barrels per day capacity refinery in Illinois. Saudi Arabia, through their Aramco subsidiary, formed the Star Enterprise joint venture with Texaco which involved three refineries with a total capacity of 615,000 barrels per day. The share of U.S. refinery capacity associated with

⁸Foreign ownership shares in excess of 5 percent are reported in company filings of Securities and Exchange Commission Form 13-D. ⁹For the U.S. Department of Commerce's reporting purposes, the petroleum industry consists of oil production (including natural gas liquids), natural gas production, oil field services, integrated refining, marketing, and petroleum transport.

¹⁰One component of FDI consists of equity and intercompany account capital flows between a foreign investor and its U.S. affiliate measured on a net basis. Since this component is measured on a net basis, it can have a negative value, resulting in a negative change in FDI position, as occurred in 1991.

Table 1. Value of FDI-Related Transactions in U.S. Energy, 1989-1991 (Million Dollars)

Acquisitions/Divestitures	1989	1990	1991
Acquisitions			
Oil and Gas Production ^a	609	901	1,043
Petroleum, Refining, Marketing, and Transport	1,015	1,040	103
Integrated Petroleum	0	0	0
Coal	381	1,416	570
Other Energy	0	0	0
Total Acquisitions	2,005	3,357	1,716
Divestitures			
Oil and Gas Production ^a	607	474	736
Petroleum, Refining, Marketing, and Transport	244	59	400
Integrated Petroleum	0	0	0
Coal ^b	245	841	155
Other Energy	0	0	0
Total Divestitures	1,096	1,374	1,291

^aIncludes drilling and drilling services.

Sources: 1991: Based on Tables A1 and A2 in the Appendix. 1990: Based on Tables A1 and A2 in Energy Information Administration, *Profiles of Foreign Direct Investment in U.S. Energy 1990*, DOE/EIA-0466(90) (Washington, DC, April 1992). 1989: Based on Tables A1 and A2 in Energy Information Administration, *Profiles of Foreign Direct Investment in U.S. Energy 1989*, DOE/EIA-0466(89) (Washington, DC, December 1990).

Venezuelan and Saudi Arabian interests rose from zero in 1985 to 8 percent in 1991, and the share of retail gasoline outlets rose from zero to 11 percent over the same period (Chapter 4 reviews the role of foreign affiliates in U.S. energy operations).

Foreign investor interest in U.S. refining was also attracted by a recovery in the profitability of these operations which began in the mid-1980's. For example, among the 23 major energy companies reporting to the Energy Information Administration's Financial Reporting System (FRS),¹¹ the return on investment in U.S. refining/marketing went from near-zero in 1984 to 15 percent in 1988 and 12 percent in 1989.¹² The collapse in oil prices, which began in late 1985 and gained momentum in the first half of 1986, led to sharply lower oil input costs which translated into lower petroleum product prices and increased demand. Also, the substantial investments made by most of the large U.S. refiners in the 1980's to upgrade their

capability to produce more gasoline and process heavier, more sulfurous (but lower priced) crude oils began to pay off in terms of bottom-line financial results. However, in 1990 and 1991, the profitability of U.S. refining and marketing tailed off sharply due to reduced product demand (largely traceable to economic recession) and higher operating costs. The drop in profitability tended to diminish the attractiveness of U.S. refining as a target of investment both for U.S. and foreign companies in 1991. Shell Oil (100-percent owned by the Royal Dutch/Shell Group) restructured their refining operations by selling their Wilmington, California refinery to Unocal in December, 1991 (see Box).

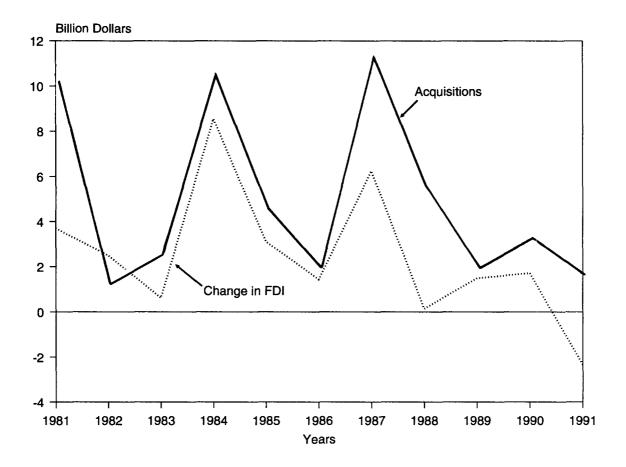
Acquisitions of U.S. upstream (oil and gas exploration and production) assets by foreign investors remained at the low levels apparent since 1986 (Figure 2) when oil prices fell to very low levels. The exception was 1988 when the market for oil and gas assets was stimulated

^b1990 includes Newmont Mining's sale of their 55-percent interest in Peabody Holding Company for \$726 million.

¹¹See Energy Information Administration, *Performance Profiles of Major Energy Producers* 1991, DOE/EIA-0206(91) (Washington, DC, December 1992), for detailed financial and operating information concerning the FRS companies and Form EIA-28.

¹²Energy Information Administration, *Performance Profiles of Major Energy Producers* 1991, DOE/EIA-0206(91) (Washington, DC, December 1992), p. 34.

Figure 1. Value of FDI-Related Acquisitions in U.S. Energy and Change in FDI Position in Petroleum and Coal, 1981-1991



Sources: Value of FDI-related acquisitions: Tables A1 and A2 in the Appendix and Tables A1, A2, and A3 from previous editions of this report. Change in FDI: calculated as annual change in FDI position, based on latest consistent set of revisions, appearing in the August issues of U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* for 1985-1992.

by Tenneco's \$8 billion divestiture of their petroleum assets. Since the oil price collapse of 1986, generally lower oil and gas prices reduced the expected profitability of oil and gas investment and encouraged cutbacks to only the most profitable prospects. For example, total U.S. exploration and development expenditures fell from over \$40 billion in 1985 to \$20 billion in 1991. The largest FDI-related acquisitions in U.S. oil and gas production in 1991 included:

 BHP, Australia's largest industrial company, increased their ownership of Hamilton Oil to 100 percent for \$530 million;

- Capercaille Holdings acquired a 38-percent ownership interest in Reading and Bates, a U.S. drilling company, in a transaction valued at \$176 million;
- Du Pont (24-percent owned by Canadian interests), through their Conoco subsidiary, acquired oil and gas properties in New Mexico's San Juan Basin for \$163 million;
- Diamond Energy, a subsidiary of Japan's Mitsubishi, acquired Texas Meridian Resources for \$60 million.

¹³Energy Information Administration, U.S. Energy Industry Financial Developments 1991 Fourth Quarter, DOE/EIA-0543(91/4Q) (Washington, DC, April 1992), p. 10.

Major FDI-Related Transactions in the U.S. Energy Industry, 1991

Acquisitions

Rheinbraun AG, subsidiary of RWE AG of Germany, acquired a 50-percent stake in Du Pont's Consolidation Coal Co. for an estimated \$570 million. The joint venture which emerged was named Consol Energy Inc.

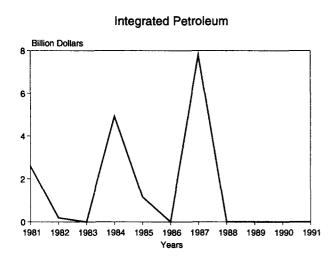
- Broken Hill Proprietary Co. Ltd., Australia, spent \$530 million to acquire the remaining 49.9 percent of Hamilton Oil Corp. it did not own.
- Capercaillie Holdings, Inc., controlled by three European investors, acquired a 38-percent ownership interest in Reading and Bates Corp., a drilling services company. The estimated value of the debt-for-equity deal was \$176 million.
- Conoco Inc., a Du Pont subsidiary, acquired oil and gas interests in the San Juan Basin from Mesa L.P. The \$163 million deal comprised \$161 million in cash and \$2.0 million in assumed gas imbalance obligations.
- Petroleos de Venezuela's subsidiary, Citgo Petroleum Corp., acquired the remaining 50-percent interest in Seaview Petroleum Co., a general partner. The \$100 million purchase included a 44,000 barrels per day refinery in Paulsboro, N.J. as well as other assets.
- All the assets of Texas Meridian Resources Corp. became the property of Diamond Energy Inc. (subsidiary of Japan's Mitsubishi) at the conclusion of a \$60 million transaction.

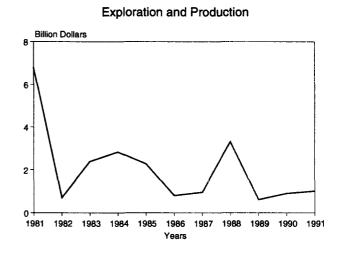
Divestitures

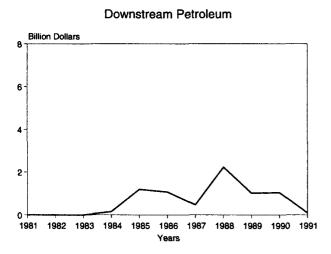
- Unocal Corp. was the buyer of Shell Oil Company's 125,000 barrels per day Wilmington, California, refinery. The purchase price was \$400 million.
- The U.S. assets of BP's subsidiary, TEX/CON Oil and Gas, were sold to Pacific Gas & Electric for \$400 million. The purchased assets included reserves of 30 million barrels of oil and 253 billion cubic feet of gas.
- Sunshine Mining Inc. disposed of its U.S. oil and gas properties, including reserves of 7.5 million barrels of oil and 154.7 billion cubic feet of gas, to Sonat Inc. for \$150 million.
- UtiliCorp United, through its subsidiary, Aqula Energy, purchased oil and gas interests in Oklahoma and Texas from Shell Western E & P Inc. The deal was valued at \$54.8 million.
- BHP Petroleum (Americas) Inc. sold 720 wells in 92 fields in Oklahoma, Texas, Colorado, and Wyoming to Geodyne Resources Inc. for \$52 million.

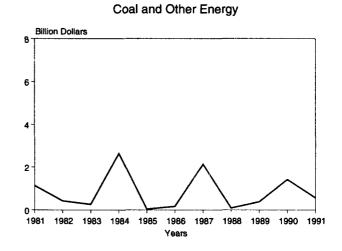
Source: Compiled from Tables A1 and A2 in the Appendix of this report.

Figure 2. Value of FDI-Related Acquisitions by Energy Segment, 1981-1991









Source: Tables A1 and A2 in the Appendix of this report and Tables A1, A2, and A3 from previous editions of this report.

Overall, in petroleum, the total value of FDI-related divestitures of \$1.1 billion just about matched the value of acquisitions (Table 1). U.S. upstream operations continued to be a target of retrenchment with sales of properties, particularly by major petroleum companies, that are of marginal value or do not integrate with long-term investment strategies. BP America, a subsidiary of British Petroleum, has been in the process of consolidating the bulk of their U.S. upstream operations mainly to Alaska and the offshore Gulf Coast. A part of this consolidation effort was the sale for \$400 million of their TEX/CON subsidiary and its onshore oil and gas assets. Shell Oil sold various Oklahoma and Texas properties for \$55 million in 1991. In recent years, a number of foreign-affiliated companies have exited the oil and gas industry (Newmont Mining in 1988, Total Petroleum (North America) in 1989, and Gulf Resources in 1990), seeking to concentrate their capital in their primary operations. In 1991, Sunshine Mining withdrew from the oil and gas business, selling its properties for \$150 million.

The largest FDI-related transaction in 1991 involved coal assets. Through a series of transactions, Du Pont transformed their Consolidation Coal subsidiary, the second largest coal producer in the United States in 1991, into a 50-50 joint venture with Rheinbraun AG, a subsidiary of RWE AG of Germany. The largest FDIrelated transaction in U.S. energy in 1990 also involved coal assets. Hanson PLC, a British conglomerate, acquired Peabody Holding Company, the leading producer of U.S. coal, for \$1.2 billion. The recent attraction of U.S. coal production to foreign investors does not appear to be strongly related to the profitability of this line of activity. Rather, the economic unification of the European Community will involve substantial restructuring of coal production which has increased the attractiveness of investment in U.S. coal production and its potential for supplying the European market. In particular, Germany and the United Kingdom will need to reduce the inefficiencies of their coal industries through subsidy reductions and coal employment policies, making substantial portions of their coal industries submarginal in terms of profitability and reducing their coal output. As a result,

the vast supplies of U.S. coal are likely to be recurring targets of investment for European investors.

Foreign Direct Investment Position in 1991

Although the FDI data published by the U.S. Department of Commerce pose difficulties in assessing the targets of investment within the energy industries,¹⁴ these data are useful for comparing FDI in U.S. energy with overall FDI in the United States. In 1991, the petroleum industry's share of overall FDI, at less than 10 percent, was at a historical low (Table 2). The petroleum industry share of FDI declined in nearly every year since the oil price crash of 1986. Prior to 1986, oil and gas production was an important focus among energy investments (Figure 2), but with sharply lower oil prices the attractiveness of upstream investment was reduced. While foreign interest in U.S. petroleum refining and marketing picked up in the late 1980's, FDI in other U.S. industries surged upward in the last half of the 1980's. Additions to overall FDI in the United States rose sharply, to over \$50 billion in both 1988 and 1989, after averaging less than \$20 billion a year in the first half of the 1980's.

In addition to the size and wealth of the U.S. economy, the attractions of the United States as a target of foreign investors included sustained economic growth and a lower-valued dollar. However, recession and reduced economic growth affected the U.S. economy beginning in late 1989. At about the same time, new developments affected two of the largest sources of FDI in the United States. Germany became unified and the former Soviet Bloc of Eastern European nations gained full autonomy which resulted in diversion of German investment away from the United States. The FDI position of Germany fell slightly in both 1990 and 1991. Japan began to experience economic difficulties, leading to the country's first recession since the mid-1970's. In 1991, FDI in the United States traceable to Japanese interests increased by only \$4.9 billion, which was sharply lower than the \$15.8 billion in average annual additions for the previous three years.

¹⁴Three limitations of the U.S. Department of Commerce data can pose difficulties in assessing targets of investment among foreign investors. First, revisions of the industry classifications of foreign-affiliated U.S. companies into SIC (Standard Industrial Classification) industries are made for only the most recent years. For example, in the data for 1991, revisions were made retroactive through 1989. Consequently, the change in FDI position between 1988 and 1989 is, to some unknown extent, due solely to reclassifications. Second, the industry classifications of foreign-affiliated companies may ascribe significant energy investment activity to nonenergy industries. For example, the highly diversified Hanson PLC acquired 100 percent of Peabody Holding Company (the leading producer of U.S. coal) in 1990 for \$1.2 billion. However, the effect on FDI of this acquisition appears to have been classified to an industry other than coal. Third, FDI measures net financial flows between the parent and the U.S. subsidiary, which can obscure the interpretation of FDI statistics. For example, a large repayment in the reporting year to a parent company of debt incurred in an earlier acquisition can reduce FDI even though FDI-related acquisition activity may have increased substantially in the reporting year.

Table 2. Foreign Direct Investment in U.S. Petroleum and Coal, 1980-1991

Year	Foreign Direct investment in U.S. Petroleum ^{a,b}	Foreign Direct Investment in U.S. Coal ^s	Total Foreign Direct Investment in U.S. ^a	Petroleum as a Percent of Total	Coal as a Percent of Total
		(billion dollars)			
980	12.2	0.5	83.0	14.7	0.6
981	15.2	1.1	108.7	14.0	1.0
982	17.7	1.2	124.7	14.2	1.0
983	18.2	1.3	137.1	13.3	0.9
984	25.4	2.6	164.6	15.4	1.6
985	28.3	2.9	184.6	15.3	1.6
1986	. 29.1	3.5	220.4	13.2	1.6
1987	. 37.8	3.3	263.4	14.4	1.3
1988	. 36.0	5.3	314.8	11.4	1.7
1989	40.3	0.9	368.9	10.9	0.2
1990	. 42.2	0.8	396.7	10.6	0.2
1991	40.0	0.7	407.6	9.8	0.2

^aForeign Direct Investment (FDI) is the value of foreign parents' net equity in, and outstanding loans to, affiliates in the United States at the end of the year.

Sources: 1987-1991: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (Washington, DC, August 1992). 1985-1986: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (Washington, DC, August 1990). 1981-1984: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (Washington, DC, August 1986). 1980: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (Washington, DC, October 1984).

Although Japan and Germany are important sources of overall FDI in the United States, ranking second and fifth, respectively, in 1991, they are minor sources of foreign investment in U.S. petroleum, together accounting for a little under 2 percent of petroleum industry FDI in 1991 (Table 3). The main sources of FDI in petroleum are investors based in the United Kingdom (36 percent of petroleum-related FDI in 1991) and in the Netherlands (31 percent). These shares largely reflect 100-percent ownership of two major integrated petroleum companies: BP America (owned by British Petroleum) and Shell Oil (owned by the Royal Dutch/Shell Group). The United Kingdom's (U.K.) share has slipped noticeably in recent years, and in 1991 accounted for \$1.6 billion of the \$2.2 billion decline in petroleum-related FDI. The bulk of the U.K. decline appeared traceable to an outflow of capital related to intercompany debt (e.g., repayment by a U.S. subsidiary of borrowings owed to their foreign parent company).15 Another feature of Table 3 is the sharp drop in petroleum-related FDI of Venezuelan investors between 1989 and 1990. This result is puzzling in light of PDVSA's 1990 purchase of the 50-percent interest in Citgo Petroleum which they did not previously own, for \$675 million. A comparison of the 1990 FDI data published by the U.S. Department of Commerce in 1991 with the data published in 1992 suggests that slightly over \$1 billion of Venezuelan petroleum-related FDI was reclassified to Panama and the Netherlands Antilles. Such a reclassification could occur because intercompany debt flows were reorganized through intermediate subsidiaries located outside of Venezuela.

^bThe petroleum industry includes all phases of oil and gas exploration and production, petroleum refining, petroleum transport, and petroleum marketing.

¹⁵U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (Washington, DC, June 1992), p. 59.

Table 3. Geographic Sources of Foreign Direct Investment in U.S. Petroleum, 1989-1991

Source	1989	1990	1991	1989	1990	1991
	(million dollars)			(percent of total)		
All Countries	40,345	42,165	39,955	100.0	100.0	100.0
Canada	1,141	1,394	913	2.8	3.3	2.3
Europe United Kingdom Netherlands Germany Other Europe	16,666 10,061 1,103 4,819	15,841 12,686 151 4,930	14,238 12,254 559 4,938	41.3 24.9 2.7 11.9	37.6 30.1 0.4 11.7	35.6 30.7 1.4 12.4
Latin America ^a Venezuela Netherlands Antilles Other Latin America	1,036 115 113	387 (b) 1,981	393 1,390 602	2.6 0.3 0.3	0.9 (b) 4.7	1.0 3.5 1.5
Australia	2,698	2,612	2,696	6.7	6.2	6.7
Other OPEC ^c	2,634	2,033	1,835	6.5	4.8	4.6
Japan	-122	11	113	-0.3	(d)	0.3
Other Countries	81	139	24	0.2	0.3	0.1

^aLatin America includes South America, Central America, and the Caribbean (outside of U.S. possessions and territories).

Source: U.S Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* (Washington, DC, August 1992).

The composition of sources of petroleum-related FDI by country and region shifted noticeably over the past 10 years (Figure 3). Although the United Kingdom and the Netherlands accounted for the majority of FDI in both 1982 and 1991, their combined share fell from 77 percent to 66 percent over the period. This decline in part reflected the restructurings of Shell Oil and BP America subsequent to the collapse of crude oil prices in 1986. In the context of lower expected oil prices, nearly all of the U.S. major petroleum companies sold or otherwise disposed of assets that were of marginal value to them or that were not integral to their longer term investment strategies. In 1991, Shell Oil sold their Wilmington, California refinery and BP America sold their TEX/CON Oil and Gas subsidiary (see Box).

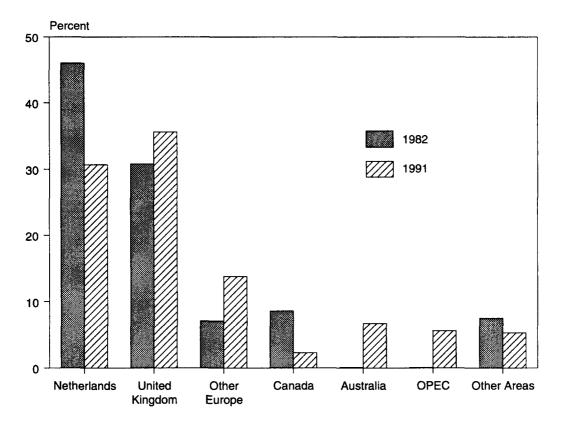
The doubling of the share of FDI from other European countries, from 7 percent to 14 percent, stemmed mainly from the growth in investment by the two largest French energy companies, Total and Elf Aquitaine. Belgium-based Petrofina, through their U.S. subsidiary Fina, has also been a significant source of foreign investment in U.S. petroleum operations. The two areas registering the steepest increases in petroleum-related FDI over the 1982-1991 period were Australia and the OPEC nations. The FDI position of Australian investors, relative to total FDI in U.S. petroleum, rose from nothing to 7 percent, largely as a result of BHP's entry into U.S. energy. BHP is primarily involved in the production and distribution of energy and minerals and is Australia's largest industrial

^bData withheld by the U.S. Department of Commerce to prevent disclosure but included in Other Latin America in 1990.

^cOPEC is the Organization of Petroleum Exporting Countries. Its members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

dLess than 0.05 percent.

Figure 3. Percent Distribution Across Countries and Regions of Foreign Direct Investment in U.S. Petroleum, 1982 and 1991



Source: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (Washington, DC, August 1985 and 1992).

company. Through a series of large acquisitions in the 1980's, BHP gained a noticeable presence in U.S. oil and gas production, U.S. coal production, and U.S. refining. The growth in OPEC members' share of FDI, from a fraction of a percent to 6 percent, was largely attributable to the movement of Venezuela's state energy company PDVSA and Saudi Arabia's Aramco into U.S. refining and marketing beginning in the second half of the 1980's (discussed in the previous section).

Canadian investors' interest in U.S. petroleum operations showed a marked decline, beginning in 1981. The Canadian share of petroleum-related FDI was 15 percent in 1980, fell to 9 percent in 1982, and steadily declined to 2 percent in 1991. This long-term decline was initially encouraged by Canadian government policies favoring Canadian ownership of energy resources located in Canada. In the mid-1980's, the Canadian government relaxed and eventually eliminated most energy price controls and reduced taxes related to oil and gas. Both sets of policies encouraged Canadians to invest in Canadian energy

resources, apparently at the expense of U.S. petroleum investments. More recently, restrictions on the export of Canadian natural gas were relaxed, resulting in an additional incentive for Canadian investment in their oil and gas resources.

The FDI position in U.S. coal registered a sharp decline in 1989 and has continued to decline slightly since then (Table 2). However, this apparent reduction in foreign investors' interest in U.S. coal is a product of the U.S. Department of Commerce's industry classification system. Acquisitions of ownership of U.S. coal assets were the largest FDI-related transactions in 1990 and 1991 in U.S. energy. In 1990, Hanson PLC, a British conglomerate, acquired 100-percent ownership of Peabody Holding Company, the number one producer of U.S. coal, for \$1.2 billion. However, the increase in FDI associated with this transaction was classified in an industry other than coal production because Hanson is a highly diversified company with operations in consumer products, industrial products, and retailing. In 1991, Rheinbraun AG, a subsidiary of RWE AG of Germany, acquired a 50-percent share in the Consol

Energy joint venture for \$570 million, with Du Pont retaining the other 50-percent interest. The foreign-affiliated Du Pont is a major petroleum company as well as the largest U.S.-based chemical company, apparently resulting in the classification of the increase in FDI associated with this transaction in an industry other than coal.

Outward Investment in Petroleum

Investment flows out of the United States as well as into the United States. Direct investment abroad (DIA), which is reported by the U.S. Department of Commerce, is the value of U.S. parent companies' net equity in, and loans to, affiliates outside of the United States. The DIA position in petroleum operations abroad, relative to total DIA in all industries, peaked at 28 percent in the 1982-1984 period (Table 4) when oil prices averaged well above \$20 per barrel. Since then, oil prices have been considerably lower while the DIA

position in petroleum has not changed significantly. Over the same period though, DIA outside of petroleum increased by 250 percent as U.S. corporations responded to the opportunities and competitive pressures stemming from the growth in international trade. As a result, petroleum-related DIA was only 13 percent of total DIA in 1991. The largest non-petroleum increase in DIA spending abroad has been directed at the acquisition or creation of European holding companies. As defined by the Department of Commerce, these holding companies may involve a single or a variety of activities.

However, direct investment abroad measures only the net flow of funds between U.S. companies and their foreign-based affiliates. A positive change in this measure does not necessarily indicate a greater level of expenditures by U.S. companies abroad nor does a negative change always indicate a diminished interest in foreign petroleum operations. For petroleum companies, capital and exploratory expenditures are a

Table 4. U.S. Direct Investment in Foreign Petroleum, 1980-1991

Year	U.S. Direct Investment in Foreign Petroleum ^{a,b}	Total U.S. Direct Investment Abroad ^a	Petroleum as a Percent of Total
	(billion o	dollars)	
980	47.6	215.4	22.1
981	53.2	228.3	23.3
982	57.8	207.8	27.8
983	57.6	207.2	27.8
984		211.5	27.5
985		230.2	25.1
986		259.8	22.5
987		314.3	19.0
988	57.8	335.9	17.2
989		372.4	13.8
990		424.1	13.4
991	59.2	450.2	13.1

^aDirect Investment Abroad is the value of U.S. parents' net equity in, and outstanding loans to, affiliates outside the United States. ^bThe petroleum industry includes all phases of oil and gas exploration and production, petroleum refining, petroleum transport, and petroleum marketing.

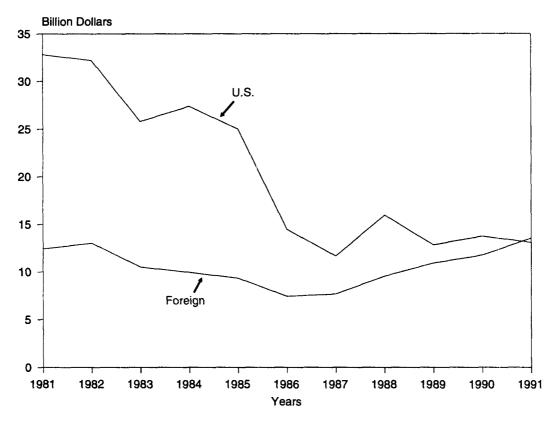
Sources: 1987-1991: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* (Washington, DC, August 1992). 1985-1986: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* (Washington, DC, August 1990). 1982-1984: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* (Washington, DC, August 1987). 1980-1981: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* (Washington, DC, August 1985).

more direct measure of U.S. companies' targets of investment abroad. Over the 1981-1986 period, petroleum related DIA rose by 10 percent (Table 4), but as shown in Figure 4, U.S. companies' expenditures for foreign exploration and development (E&D) were declining. On the other hand, DIA dropped sharply between 1988 and 1989 due to divestitures related to restructurings but foreign E&D spending rose.

The 23 companies reporting to the Energy Information Administration's Financial Reporting System (FRS)

accounted for over 90 percent of U.S. companies' foreign E&D expenditures for oil and gas in 1991. Total FRS company foreign E&D expenditures rose from \$7.5 billion in 1986 to \$13.7 billion in 1991, an increase of 82 percent (Figure 4). The realization of higher returns on foreign versus domestic upstream operations drove these investments. Investments in Organization for Economic Cooperation and Development (OECD) Europe prospects accounted for 59 percent of the increase in FRS foreign E&D spending over the period. The heightened focus on North Sea

Figure 4. Exploration and Development Expenditures of the FRS Companies, 1981-1991



Source: Energy Information Administration, *Performance Profiles of Major Energy Producers 1991*, DOE/EIA-0206(91), (Washington, DC, December 1992).

¹⁶Based on data contained in Arthur Andersen & Co., Oil and Gas Reserve Disclosures (Chicago, 1992), the 23 FRS companies accounted for 92 percent of foreign exploration and development expenditures made by U.S.-based companies in 1991.

¹⁷Energy Information Administration, Performance Profiles of Major Energy Producers 1991, DOE/EIA-0206(91) (Washington, DC, December 1992), Table B34.

prospects resulted in OECD Europe's share of FRS foreign E&D expenditures increasing from 42 percent of the total foreign E&D spending in 1986 to 50 percent of the foreign E&D spending in 1991. The Other Eastern Hemisphere region followed OECD Europe in importance, as measured by E&D expenditures. This region accounted for 19 percent of the total gain in FRS foreign E&D spending, and in 1991 accounted for 17

percent of total FRS E&D spending abroad.¹⁹ FRS foreign refining/marketing investments also rose between 1986 and 1991. Between 1986 and 1991, additions to investment in place in foreign refining/marketing operations saw an 83-percent increase.²⁰ These added investments were also concentrated in Europe and the Other Eastern Hemisphere regions.²¹

¹⁸Energy Information Administration, *Performance Profiles of Major Energy Producers* 1991, DOE/EIA-0206(91) (Washington, DC, December 1992), Table B34.

¹⁹Energy Information Administration, *Performance Profiles of Major Energy Producers* 1991, DOE/EIA-0206(91) (Washington, DC, December 1992), Table B34.

²⁰Energy Information Administration Form EIA-28.

²¹Chevron Corporation, Supplement to the 1991 Annual Report, p. 57; Exxon Corporation, 1991 Annual Report Supplement, p. 37; Mobil Corp., 1991 Mobil Fact Book, p. 60.

3. Financial Profiles of Foreign-Affiliated U.S. Energy Companies

Financial performance is an important factor in evaluating past decisions and assessing options for the development and supply of energy resources. Of particular relevance to the objectives of this report is the performance of foreign-affiliated energy companies compared with other U.S. energy companies and the rest of U.S. industry. This chapter examines comparative financial performance for 1991. However, in order to provide a context for reviewing financial information, a brief overview of energy market developments in 1991 is provided.

1991 Energy Market Review

During the first few months of 1991, the focus of world energy markets centered on events in the Persian Gulf. Subsequent to the August 1990 Iraqi invasion of Kuwait, crude oil prices soared, reaching a weekly high of \$36 per barrel in September of 1990.²² However, crude oil prices drifted lower during the waning months of 1990, and by the time of Iraq's decisive defeat by coalition forces in February of 1991, prices had returned to near their pre-war levels. For the year, crude oil prices averaged a little over \$3 per barrel less than in 1990.²³

Crude oil prices were lower in 1991, despite the fact that several developments cast doubt upon the reliability of world oil supply: blazing Kuwaiti oil fields which were set afire by the retreating Iraqi army, the continuing embargo of Iraqi crude, and the deterioration in the crude oil productive capacity of the former Soviet Union. Still, despite crude oil production reductions in Iraq, Kuwait, and the former Soviet Union, world oil production held fairly steady between 1990 and 1991.

On the demand side, the sluggish state of world economic activity, particularly in the United States, worked to restrain petroleum product prices in 1991. The U.S. economy contracted 1.1 percent between 1990 and 1991, after showing little growth during the previous year.24 As a result of economic recession, the U.S. demand for crude oil was 2 percent lower in 1991 than in 1990, and at its lowest level since 1987. U.S. imports of crude oil also fell in 1991, by 2 percent from the 1990 level, representing the first year-over-year decline in crude oil imports since 1986. Weaker transportation and industrial demand for petroleum products accounted for most of the decline in domestic crude oil consumption. The demand for natural gas, however, was up 2 percent in 1991, partly due to 1991's relatively cooler winter, and also due to greater natural gas usage by industry in cogeneration operations.²⁵ Despite the increase in demand, the price of natural gas continued to be influenced by the market's view that supply remained abundant, and natural gas prices fell 4 percent between 1990 and 1991. At \$1.64 per thousand cubic feet, the wellhead price of natural gas was at its lowest yearly average since 1980. The price competitiveness of natural gas relative to alternative fuels also served to boost consumption in 1991.

Weak petroleum demand and prices resulted in all segments of the U.S. petroleum industry reporting lower annual income in 1991 compared with 1990. Net income for the domestic oil and gas production operations of major oil companies was 40 percent lower in 1991 than in 1990.²⁶ Independent oil and gas producers reported a 62-percent decline in income over the same period.²⁷

²²Energy Information Administration, Weekly Petroleum Status Report, March 13, 1992, Figure 9.

²³Unless otherwise noted, energy price and quantity data in this section are from Energy Information Administration, *Monthly Energy Review*, December 1992, DOE/EIA-0035(92/12) (Washington DC, December 1992).

²⁴DRI/McGraw-Hill, U.S. Central Data Bank, Data Item GNP 82.

²⁵Energy Information Administration, *Natural Gas Annual* 1991, DOE/EIA-0121(91) (Washington DC, October 1992), p. 1 and Table 1. ²⁶Energy Information Administration, *Performance Profiles of Major Energy Producers* 1991, DOE/EIA-0206(91) (Washington DC, December

^{1992),} Table 1.

²⁷Energy Information Administration, U.S. Energy Industry Financial Developments, 1991 Fourth Quarter, DOE/EIA-0543(91/04) (Washington DC, April 1992), Table 2.

In U.S. refining and marketing operations, slack demand for refined products, along with some higher refining/marketing costs, reduced the spread between sales prices and operating costs in 1991 and led to lower U.S. downstream earnings for both the major petroleum companies and the independent refining companies. Major petroleum companies reported a 36-percent decline in their refining/marketing earnings between 1990 and 1991, 28 while independent refiners saw their income fall by 23 percent. 29 Operating costs generally rose for refiners in 1991, in part, as a result of stricter environmental legislation and, in part, because of higher costs of operating gasoline marketing networks. 30

The U.S. coal industry was also adversely affected by a combination of reduced economic activity in 1991 and a large overhang of coal inventories at the beginning of 1991 due to a build-up of coal stocks by producers, distributors, and electric utilities in 1990.³¹ Coal production in 1991 was 3 percent below the record level of 1990 and the average price of coal was down 1 percent.³² Coal producers' financial results were hurt

by the softness in the coal market in 1991. For the coal line of business of the major energy companies reporting to the Energy Information Administration's Financial Reporting System, net income (excluding unusual items) fell 15 percent, from \$624 million in 1990 to \$528 million in 1991.³³ For the seven publicly-traded companies whose primary industry classification is coal production and distribution, net income declined from \$125 million in 1990 to \$66 million in 1991, a 47-percent drop.³⁴

Profits and Investment in 1991

As a result of energy market developments and the decline in economic activity in 1991, energy companies and U.S. industry overall fared poorly in terms of financial performance. The manufacturing sector experienced a 29-percent decline in net income, their third consecutive, and most severe, decline (Table 5). Profitability of manufacturing companies, as measured by return on stockholders' equity (Figure 5) plunged to its lowest level since at least 1947.³⁵ It should be noted that many large industrial companies outside of energy

Table 5. Annual Change in Net Income and Return on Stockholders' Equity, 1989-1991 (Percent)

	Percent	Change in N	et income	Return on Stockholders' Equity ^a		
Industries	1989	1990	1991	1989	1990	1991
U.S. Energy Companies ^b	-10.4	7.5	-35.4	11.3	11.7	7.4
All U.S. Manufacturing Corporations	°-11.8	°-18.1	^{c,d} -28.6	13.6	10.7	⁴7.5

^aNet income as a percent of year-end stockholders' equity.

Sources: Energy companies: Compustat II Industrial File. Corporate profits after income taxes for all U.S. manufacturing corporations and return on stockholders' equity for all U.S. manufacturing corporations: *Economic Report of the President February* 1992, p. 400.

blncludes both groups of companies shown in Table 6.

^cPercent change in corporate profits after income taxes.

^d1991 figure is the annual average through the third quarter.

²⁸Energy Information Administration, *Performance Profiles of Major Energy Producers* 1991, DOE/EIA-0206(91) (Washington DC, December 1992), Table 1.

²⁹Energy Information Administration, U.S. Energy Industry Financial Developments, 1991 Fourth Quarter, DOE/EIA-0543(91/04) (Washington DC, April 1992), Table 2.

³⁰Energy Information Administration, Performance Profiles of Major Energy Producers 1991, DOE/EIA-0206(91) (Washington DC, December 1992), p. 37.

³¹Energy Information Administration, Coal Production 1991, DOE/EIA-0118(91) (Washington, DC, October 1992), p. 13.

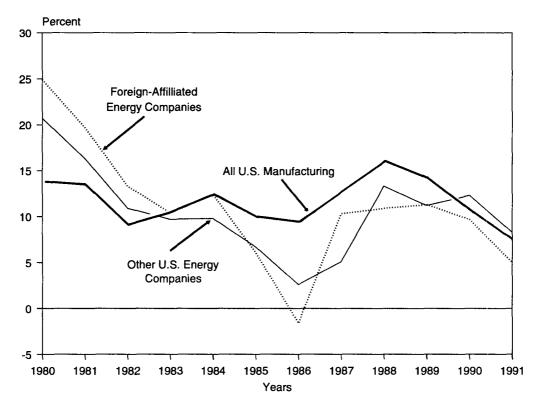
³²Energy Information Administration, Coal Production 1991, DOE/EIA-0118(91) (Washington, DC, October 1992), pp. 51, 83.

³³Energy Information Administration, Performance Profiles of Major Energy Producers 1991, DOE/EIA-0206(91) (Washington, DC, December 1992), p. 6.

³⁴Standard and Poor's Compustat II Industrial File.

³⁵Economic Report of the President, February 1992, p. 400.

Figure 5. Return on Stockholders' Equity for Foreign-Affiliated U.S. Energy Companies, Other U.S. Energy Companies, and All U.S. Manufacturing Corporations, 1980-1991



Sources: Energy companies: Compustat II Industrial File and company annual reports. All U.S. manufacturing corporations: *Economic Report of the President*, February 1992.

restructured in 1991, resulting in substantial special charges against income. These charges are generally taken to set up financial reserves for the future expenses of downsizing (e.g., severance pay and early disbursements of pensions). Most of the major petroleum companies and surviving oil and gas producers undertook major, corporate-wide restructurings in the 1984-1987 period in response to lower expectations for the course of oil prices and poor performance from activities outside of petroleum and chemicals.

For U.S. energy companies, net income declined 35 percent in 1991 after registering a modest recovery in

the previous year.³⁶ The foreign-affiliated companies fared somewhat worse than other energy companies, registering a 52-percent decline in net income compared with a 32-percent decline for other U.S. energy companies (Table 6). However, this apparent difference in financial performance was traceable to two developments. First, the year 1991 was especially difficult for Shell Oil (100-percent owned by the Royal Dutch/Shell Group) whose net income fell from \$1 billion in 1990 to nearly zero in 1991. According to Shell Oil's Chief Executive Officer, Shell Oil was "... disadvantaged relative to industry by markedly lower heavy oil and residual prices and extremely weak gasoline marketing margins. Special provisions for

³⁶The financial information presented in this section was drawn from the consolidated financial statements contained in Standard and Poor's Compustat II Industrial File. The U.S. energy industry comparison group is composed of companies other than the foreign-affiliated companies on the Compustat file that are classified under the four-digit Standard Industrial Classification (SIC) industry categories of crude oil and natural gas production (1311), petroleum refining (2911), oil field services (1381, 1382, and 1389), and bituminous coal and lignite production (1220 and 1221), excluding companies that have been identified as foreign-affiliated, or companies whose operations are foreign-based, or companies whose operations are already included in U.S. companies that have been identified as foreign-affiliated. BP America discontinued publication of their consolidated financial statements beginning with the 1989 reporting year. Consequently, their financial results are not included in Tables 5 and 6.

Table 6. Selected Financial Information for Foreign-Affiliated U.S. Energy Companies, 1990-1991

	Foreign-Affili	ated U.S. Energ	y Companies ^a	U.S. Energy Industry Comparison Gr		
Category	1990	1991	Percent Change	1990	1991	Percent Change
	(billion	dollars)		(billion	dollars)	
Financial Items						
Revenues	93.2	86.6	-7.1	426.2	404.1	-5.2
Net Income	4.6	2.2	-52.2	18.3	12.4	-32.2
Cash Flow ^c	11.7	9.8	-16.2	46.3	41.5	-10.4
Capital Outlays	11.6	10.9	-6.0	41.5	43.5	4.8
Cash Dividends	2.6	2.7	3.8	11.7	11.7	0.0
Total Assets	104.0	96.0	- 7.7	404.1	400.9	-0.8
			(percent)			
Financial Ratios						
Return on Equity ^d	9.7	5.0		12.3	8.3	
Dividends/Net Income	57.3	121.4		64.0	94.0	
Dividends/Cash Flow	22.5	27.6		25.2	28.1	
Debt/Equity ^e	32.7	35.7		55.2	56.3	

^aIncludes incorporated U.S. energy companies which are foreign-affiliated and for which publicly reported financial information is available. Also included are foreign parent companies for which data for U.S. operations were not separately disclosed. For 1990, these companies were: Adobe Resources Corp., Anadarko Petroleum Corp., Arabian Shield Development Co., Ashland Coal Inc., Avalon Corp., Barret Resources Corp., Bellwether Exploration Co., Caspen Oil Inc., Castle Energy Corp., Chieftain International Inc., Coda Energy Inc., Coho Resources Inc., Daleco Resources Corp., DRX Inc., E.I. du Pont de Nemours and Company, Exploration Co., Exploration Company of Louisiana, Fina Inc., Georesources Inc., Gold King Consolidated Inc., Great Northern Gas Co., Gulf USA Corp., Hamilton Oil Corp., Harcor Energy Co., Harken Energy Corp., Hondo Oil and Gas Co., Horsham Corp., Inspiration Resources Corp., M.A. Hanna Co., MSR Exploration Ltd., New London Inc., Newmont Mining Corp., Norcen Energy Resources Ltd., Oceanic Exploration Co., Panhandle Eastern Corp., Penn Virginia Corp., Placer Dome Inc., Presidio Oil Co., Ranger Oil Ltd., Reading & Bates Corp., Rio Algom Ltd., Santa Fe Energy Resources Inc., Schlumberger Ltd., Shell Oil Co., Sunshine Mining Co., Sunlite Inc., Taurus Petroleum Inc., Tesoro Petroleum Corp., Total Petroleum (North America), Trinity Resources Ltd., Triton Energy Corp., Unimar Co., Westmoreland Coal Co., and Woodbine Petroleum Inc. In 1991, Ultramar Corp., was included. In 1991, the following companies were not included: DRX (taken private). Hamilton Oil (100-percent acquired by BHP), Inspiration Resources (sold U.S. energy assets), M.A. Hanna (sold U.S. energy assets), Newmont Mining (sold U.S. energy assets), Placer Dome (sold U.S. energy assets), Sunshine Mining (sold U.S. energy assets), Trinity Resources (sold U.S. energy assets), and Triton Energy (no longer foreign-affiliated). All data for the companies were derived from the Compustat II Industrial File.

^bThe comparison group is derived from aggregates available from the Compustat II Industrial File for the following four digit (SIC) industries: 1220 (bituminous coal, lignite mining), 1221 (bituminous coal, lignite surface mining), 1311 (crude petroleum and natural gas production), 1381 (oil and gas well drilling), 1382 (oil and gas field exploration), 1389 (oil and gas field services not elsewhere classified), and 2911 (petroleum refining). The Compustat aggregates are adjusted by subtracting out data for companies which have been identified as foreign-affiliated, or whose operations are foreign-based, or foreign-based companies whose U.S. operations are already included in U.S. companies identified as foreign-affiliated.

^cMeasured as cash flow from operations.

^dDefined as net income divided by year-end stockholders' equity.

^eDefined as year-end long-term debt divided by year-end stockholders' equity.

Source: Compiled from Compustat II Industrial File and company annual reports.

restructuring, environmental remediation, and litigation were also significant factors in the earnings decline."³⁷ Second, a number of foreign-affiliated companies, primarily involved in nonenergy minerals, divested their U.S. energy assets in late 1990 and 1991.³⁸ Consequently, these companies' financial results are not included for 1991. Excluding these companies and Shell Oil, the change in net income for the remaining foreign-affiliated energy companies was 31 percent, nearly the same as the 32-percent decline for the U.S. Energy Industry Comparison Group.

Both groups of companies showed little change in their level of capital spending in 1991, despite the sharp declines in net income. Similarly, dividends were nearly unchanged between 1990 and 1991 for both groups. This behavior suggests that the rise in profits in 1990, which was largely due to the effects on petroleum prices of the Iraqi invasion of Kuwait, was generally viewed as transitory. Capital expenditures continued to be premised on longer run expectations concerning

energy markets, and dividend policy was directed toward maximizing shareholder value.

The last line of Table 6 indicates that the foreign affiliates have a much lower dependence on debt financing than do other energy companies. The foreign affiliates' leverage ratio (long-term debt to stockholders' equity) was 35 percent in 1991 compared with 56 percent for other energy companies. This difference was due to the low leverage ratios of the two largest foreign-affiliated companies, Shell Oil and Du Pont.³⁹ Among the 23 major energy companies that reported to the Energy Information Administration's Financial Reporting System, Shell Oil and Du Pont had the lowest and sixth-lowest leverage ratios, respectively, and on the basis of the ratio of total debt to equity, these two companies ranked lowest in 1991. Excluding Shell Oil and Du Pont, the leverage ratio was 56 percent for the remaining foreign-affiliated energy companies, nearly identical to the rest of the U.S. energy industry.

³⁷Shell Oil Company, 1991 Annual Report, p. 2.

³⁸Inspiration Resources, M.A. Hanna, Newmont Mining, Placer Dome, and Sunshine Mining.

³⁹BP America is also among the largest foreign affiliates. However, since BP America does not publicly disclose their consolidated financial statement they are not included in Tables 5 and 6.

4. The Role of Foreign-Affiliated Companies in U.S. Energy Operations

Transactions data and information drawn from the U.S. Department of Commerce's international investment surveys are useful for discerning the investment targets of foreign investors and changes in their interests in U.S. energy. However, these data yield no information on the prominence of foreign-affiliated enterprises in U.S. energy activities in 1991 or over time. In this chapter, the roles of foreign-affiliated companies in the areas of upstream and downstream petroleum operations (including natural gas production), coal production, and uranium exploration and development are reviewed. Generally, the shares of U.S. energy activities of foreign-affiliated companies in 1991 were down slightly, reflecting their reduced level of acquisitions and continued divestitures of U.S. energy assets.

Oil and Gas Reserves and Production

Foreign affiliates' U.S. oil (crude oil and natural gas liquids) production held steady at 1.5 million barrels per day between 1990 and 1991 (Table 7), versus a 2-percent rise in total U.S. oil production. Consequently, foreign affiliates' share of total U.S. crude oil production fell slightly to 16.1 percent from 16.5 percent in 1990. Two companies accounted for most of the foreign-affiliated companies' involvement in U.S. oil production. ⁴⁰ BP America's introduction of a gas handling facility at Prudhoe Bay, Alaska and Shell's increased offshore Gulf of Mexico production were responsible for stabilizing the foreign-affiliated companies' level of domestic oil production. During 1991, BP had a 51-percent interest in Prudhoe Bay production while Shell was responsible for 12 percent

of all Gulf of Mexico crude oil production. Excluding BP America and Shell, foreign-affiliated U.S. oil production was effectively unchanged. In 1990, BP America and Shell accounted for more than the total decline in foreign-affiliated companies' oil production. In the case of BP, the decline was the result of lower production from an aging Prudhoe Bay field, while Shell Oil attributed their decreased U.S. oil and gas production primarily to a decline in output from older fields not fully offset by new production.

The foreign-affiliated companies' share of U.S. oil reserves fell slightly between 1990 and 1991, to 18.4 percent of total U.S. crude oil reserves, down from 18.6 percent in 1990. (Table 8). Shell Oil was responsible for most of this decline. In 1991, due to lower crude oil prices, Shell made a downward revision of its earlier crude oil reserve estimates. Excluding Shell, crude oil reserves of foreign affiliates were unchanged from 1990.

U.S. natural gas production of foreign-affiliated companies fell 6 percent in contrast to the nearly unchanged level of total U.S. gas production (Table 7). BP America and Shell accounted for most of the foreign-affiliated companies' decline. Largely due to aging fields, BP America and Shell produced 8 percent less natural gas in 1991.⁴³

The natural gas reserves of foreign-affiliated companies also fell in 1991, by 5 percent (Table 8). This reduction was largely due to the actions of BP and Shell, but also due to a downward revision on the part of Du Pont's Conoco unit. These three companies accounted for 70 percent of all foreign-affiliated natural gas reserves in 1991. Shell attributed the downward revision of its reserves to lower prices, 44 while Du Pont explained that their reduced reserves were the result of

⁴⁰In 1991, BP America and Shell accounted for 81 percent of foreign-affiliated oil production.

⁴¹Shell Oil Company, 1991 Annual Report, p. 46 and Energy Information Administration, Petroleum Supply Annual 1991, DOE/EIA-0340(91)/1(Washington, DC, June 1992), Table 14.

⁴²Shell Oil Company, 1991 Annual Report, p. 6.

⁴³BP, Annual Report on Form 20-F, p. 13, and Shell Oil Company 1991 Form 10-K, p. 20.

⁴⁴Shell Oil Company, 1991 Annual Report, p. 6.

Table 7. Net Production of Petroleum and Dry Natural Gas in the United States by Foreign-Affiliated U.S. Companies, 1989-1991

	Crude Oil a	and Natural G	as Liquids ^a	D	ry Natural G	Gas ^a	
Company	1989	1990	1991	1989	1990	1991	
	(thous	and barrels p	er day)	(1	billion cubic fe	et)	
BP America	784.7	737.0	738.0	^b 89.1	^b 115.0	^b 78.8	
Shell Oil Company	493.2	460.3	457.5	532.0	517.0	501.0	
Du Pont	112.3	120.5	120.5	274.0	237.0	276.0	
Santa Fe Energy Resources	50.7	52.1	55.2	29.8	37.4	34.8	
Fina	22.4	22.5	21.0	72.1	74.8	74.4	
Anadarko Petroleum	9.7	11.1	16.9	141.5	148.2	134.4	
BHP Petroleum (Americas)	12.9	12.9	10.8	49.7	47.2	48.4	
Total Minatome Corporation	12.8	11.5	10.7	53.9	51.2	45.5	
Presidio Oil Co	4.4	9.1	7.7	17.5	22.4	23.3	
Hondo Oil and Gas	9.1	7.8	7.7	15.6	14.4	12.9	
Adobe Resources Corporation	4.6	5.3	6.4	22.1	27.3	28.5	
Elf Aquitaine Incorporated	4.4	4.4	5.5	30.0	33.5	27.6	
Bridge Oil (USA)	3.7	4.9	4.1	14.0	36.4	32.1	
Coho Resources	2.6	3.1	3.5	(c)	0.1	0.6	
Ultramar ^d	2.7	2.6	2.7	10.1	13.2	6.0	
Norcen Energy Resources	1.5	1.1	2.5	8.4	6.7	11.1	
Chieftain Development International	1.0	1.5	1.5	3.3	13.9	10.1	
Avalon Corp	1.0	0.7	0.2	0.5	0.3	0.1	
Wintershall Corporation	2.3	1.9	0.0	17.6	14.8	0.0	
Sunshine Mining Company	2.3	1.6	0.0	12.9	11.0	0.0	
Deminex U.S. Oil Company	1.7	1.6	0.0	2.8	3.3	0.0	
Triton Energy Corporation	1.8	1.4	NF	6.5	3.9	NF	
Placer Dome Incorporated	2.2	0.9	0.0	8.6	3.6	0.0	
Unimar Company	2.0	(e)	(e)	9.8	(e)	(e)	
Gulf USA	1.0	0.0	0.0	4.3	0.0	0.0	
Other Companies	5.7	4.8	3.7	26.0	24.4	22.1	
Total Foreign-Affiliated	1,552.7	1,480.6	1,476.1	1,452.1	1,457.0	1,367.7	
Total United States	9,219.0	8,994.0	9,168.0	17,311.0	17,810.0	17,751.0	
Percent Foreign-Affiliated	16.8	16.5	16.1	8.4	8.2	7.7	

^aUnless otherwise noted, company production is net ownership interest production.

Sources: Company data: Form 10-K reports to the U.S. Securities and Exchange Commission and Annual Reports to Shareholders. Totals for the United States: Energy Information Administration, *Monthly Energy Review*, December 1992, DOE/EIA-0035(92/12) (Washington, DC, December 1992).

^bExcludes natural gas consumed in Alaskan operations.

^cLess than 0.05.

^dAcquired by Lasmo PLC in 1991.

^eU.S. oil and gas assets distributed to partners (Ultramar and Allied-Signal) in 1990.

NF = No foreign affiliation during this period.

Note: Totals may not equal sum of components due to independent rounding.

Table 8. Domestic Oil and Dry Natural Gas Proved Reserves and Production for Foreign-Affiliated U.S. Companies, 1990 and 1991

Fuel Type	Foreign-Affiliated Companies ^a	U.S. Total	Foreign-Affiliated Share of U.S. Tota	
	(million	(percent)		
Crude Oil and Natural Gas Liquids				
Proved Reserves				
December 31, 1990	6,290	33,840	18.6	
December 31, 1991	5,917	32,146	18.4	
1991 Production	540	3,266	16.5	
1991 Gross Reserve Additions ^b	167	1,572	10.6	
1991 Ratio of Gross Reserve		·		
Additions to Production	0.31	0.48	NM	
	(billion o	ubic feet)		
Dry Natural Gas Proved Reserves				
December 31, 1990	16,604	169,346	9.8	
December 31, 1991	. 15,696	167,062	9.4	
1991 Production		17,202	8.0	
1991 Gross Reserve Additions ^b		14,918	3.1	
1991 Ratio of Gross Reserve		•		
Additions to Production	0.34	0.87	NM	

^aReserves and production are on a net ownership interest basis. The reserves and production data, under each fuel type, are for companies identified as foreign affiliated and reporting oil and/or natural gas production during 1991.

Source: Foreign-affiliated data: Companies' Form 10-K filed with the U.S. Securities and Exchange Commission and Annual Reports to Shareholders. U.S. totals: Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1991 Annual Report*, DOE/EIA-0216(91) (Washington, DC, November 1992).

the reclassification of an affiliate from a consolidated to a non-consolidated status. ⁴⁵ BP America, meanwhile, cited worsening prospects for the construction of some gas transportation facilities which reduced the economic viability of some of BP's natural gas fields in Alaska as the reason for its reduced gas reserve estimate. ⁴⁶ BP's sale of its TEX/CON subsidiary also contributed to the reduction in U.S. reserves. ⁴⁷ TEX/CON held 253 billion cubic feet in natural gas reserves. In sum, the foreign affiliates' share of U.S. natural gas reserves fell from 9.8 to 9.4 percent.

In contrast to the waning interest of both domestic and foreign petroleum companies in acquiring additional U.S. oil and gas reserves, reserve additions abroad by major U.S. energy companies reporting to the Energy Information Administration's Financial Reporting System (FRS) rose 9 percent in 1991. Asia and Latin America (including the Caribbean) registered substantially higher reserve additions in 1991. Sources of increased reserves in Asia included increased production capability in Indonesia in order to serve growing natural gas demand in the Pacific Rim and

^bGross reserve additions = annual change in reserves + annual production.

NM = Not meaningful

⁴⁵Du Pont, Annual Report 1991, p. 49.

⁴⁶BP, Annual Report on Form 20-F 1991, p. 13.

⁴⁷BP, Annual Report on Form 20-F 1991, pp. 11-13.

⁴⁸Energy Information Administration, *Performance Profiles of Major Energy Producers* 1991, DOE/EIA-0206(91) (Washington DC, December 1992), Table 17.

new discoveries in Indonesia, Malaysia, and Thailand. In South America and the Caribbean, Colombian oil and Trinidadian gas were the main sources of increased reserves. Overall, however, there were no dramatic changes in the global portfolio of FRS company oil reserve interests (Table 9).

Refining and Gasoline Marketing

Downstream, the foreign-affiliated companies' share of total U.S. crude distillation capacity fell from 27.9 percent in 1990 to 27.5 percent in 1991 (Table 10). This

decline was largely due to the sale by Shell Oil of their Wilmington, California refinery, which had a capacity of 120,000 barrels per day (b/d), to Unocal. Slightly offsetting the Shell sale was an increase in refinery capacity at Fina, which raised its crude distillation capacity to 199,000 b/d in 1991 versus 165,000 b/d of capacity in 1990. This improvement was largely the result of a retooling of operations at Fina's Port Arthur, Texas refinery.⁴⁹ In 1991, Shell Oil remained the largest foreign-affiliated refiner in the United States, accounting for nearly one quarter of all foreign-owned refining capacity and 6 percent of total U.S. refining capacity. Absent the Shell refinery sale and Fina

Table 9. Foreign Crude Oil and Natural Gas Liquids Reserve Interest for FRS Companies, 1991 and Percent Change from 1990

Crude Oil and NGL Reserve Interest	Total Foreign	Canada	OECD Europe	Africa	Middle East	Other Eastern Hemisphere	Other Western Hemisphere		
	(million barrels)								
1991									
Total Crude and NGL									
Reserve Interest ^a	13,432	2,369	4,189	1,820	1,814	2,421	819		
	(percent)								
Percent Distribution by									
Geographic Region, 1991									
Total Crude and NGL									
Reserve Interest	100.0	17.6	31.2	13.5	13.5	18.0	6.1		
Percent Change from 1990									
Total Crude and NGL									
Reserve Interest	-1.2	- 7.9	-3.1	6.7	1.4	3.1	-4.1		
Share of Market Economies, 1991 ^b									
Total Crude and NGL									
Reserve Interest	1.5	30.0	28.9	3.0	0.3	12.0	0.7		

^aThe components of total foreign crude oil and natural gas liquids reserve interest are net ownership interest reserves (89 percent) and "Other Access" reserves (11 percent). "Other Access" reserves include proportional interest in investee reserves and foreign access reserves.

^bExcludes former U.S.S.R., China, and Eastern Europe.

Note: Totals may not equal sum of components due to independent rounding. While five of the FRS companies are foreign-affiliated, their foreign reserves are a small portion of the FRS total.

Sources: FRS companies: Energy Information Administration, *Performance Profiles of Major Energy Producers 1991*, DOE/EIA-0206(91) (Washington, DC, December 1992). Market economies: British Petroleum Company, *BP Statistical Review of World Energy* (London, June 1992).

⁴⁹Fina, Annual Report 1991, p. 12.

refinery expansion, the overall share of foreign-affiliated companies in U.S. refining operations was largely unchanged between 1990 and 1991. While there was a major consolidation involving U.S. refining assets held by Petroleos de Venezuela, S.A. (PDVSA) in 1991, these transactions had no net effect on the foreign affiliates' share of total U.S. refining assets. In 1991, PDVSA completed the following transactions:⁵⁰

- Citgo became a wholly-owned subsidiary of PDVSA on January, 1991.
- Also in January, 1991, Champlin Refining and Petrochemicals was merged into Citgo.
- The remaining 50-percent of shares in Seaview Petroleum were acquired by Citgo in February, 1991.

In 1991, four European companies (Shell, BP America, Total, and Fina) owned nearly half of all the foreign affiliates' U.S. refining capacity and 13 percent of total U.S. refining capacity (Table 10). Two OPEC state oil companies, PDVSA (including the Uno-Ven joint venture) and Aramco (through ownership in the Star Enterprise joint venture), accounted for 29 percent of foreign-affiliated refining capacity and 8 percent of total U.S. refining capacity. Two Canadian U.S. affiliates (Du Pont and Clark) accounted for 12 percent of foreign-affiliated capacity and 3 percent of total U.S. refining capacity.

In the U.S. retail gasoline market, the number of foreign-affiliated branded retail outlets fell 2 percent to 51,482 in 1991 (Table 11). This decline, however, was exceeded by the 4-percent decline in the total number of U.S. branded retail outlets. Most of the decline in the number of foreign-affiliated retail outlets was traceable to the actions of Shell and the Star Enterprise joint venture. The number of Shell's branded retail outlets fell from 9,389 in 1990, to 8,975 in 1991, due to Shell's withdrawal from some Northwest markets. Meanwhile, the number of Star branded retail outlets fell from 10,849 to 8,653. The foreign affiliates' share of gasoline supplied was up fractionally to 32.0 percent.

In contrast, foreign downstream operations were a clear target of investment by FRS companies in 1991. The refining capacity of FRS companies equalled 11.7 percent of total foreign refining capacity, up from their 1990 share of 10.9 percent (Table 12). The FRS companies increased their capital spending in foreign refining and marketing by 29 percent, to a record \$3.9 billion, even after adjusting for the effects of acquisitions.51 The increase reflected a growing interest by the largest FRS companies in refining and marketing outside of the United States. For example, Mobil upgraded a refinery in Singapore, expanded its marketing operations in the Netherlands, Poland, and Czechoslovakia, and purchased Exxon's Australian assets.⁵² Exxon brought various downstream processing units into operation at three of its European refineries, built or upgraded 150 service stations throughout Europe, and began a joint venture on a plant in Mexico City.53 Chevron purchased a one-half interest in a Canadian MTBE (methyl tertiary butyl ether) plant, upgraded a refinery in British Columbia, and began building a cogeneration plant at its refinery in Wales. Coastal organized an international group in 1991 and entered a joint venture to market refining technology in the Commonwealth of Independent States.54

Coal Production

U.S. coal production fell 3 percent between 1990 and 1991, ending a 6-year long stretch of annual production increases.⁵⁵ Lower production, along with a slight decline in coal prices, led to a disappointing year for coal industry profitability.

The share of foreign-affiliated companies' of U.S. coal production fell from 24.7 percent in 1990 to 24.0 percent in 1991 (Table 13 and Figure 6). This decline largely reflected three divestitures: Cannelton, a Canadianowned subsidiary, was sold to Amax, a U.S. firm; M.A. Hanna Company sold its 50-percent interest in Colowyocoal to Grace Energy, a unit of W.R. Grace; and, in 1990, BP America sold its coal assets, resulting in no production in 1991.

⁵⁰Citgo Petroleum, 1991 Annual Report, p. 44, and Petroleos de Venezuela, S.A., 1991 Annual Report, p. 22.

⁵¹Energy Information Administration, Performance Profiles of Major Energy Producers 1991, DOE/EIA-0206(91) (Washington, DC, December 1992).

⁵²Mobil Corporation, Annual Report 1991, p. 19.

⁵³Exxon Corp., 1991 Annual Report, pp. 20-21.

⁵⁴The Coastal Corp., 1991 Annual Report, p. 4.

⁵⁵Energy Information Administration, *Monthly Energy Review*, December 1992, DOE/EIA-0035(92/12) (Washington DC, December 1992), Table 6.1.

Table 10. U.S. Refinery Operations of Foreign-Affiliated U.S. Companies, 1987-1991

		Numb	er of Refi	neries ^e		Tot	al Crude	Distillatio	on Capaci	ty ^a
Company	1987	1988	1989	1990	1991	1987	1988	1989	1990	1991
							(thousan	d barrels	per day)	
Shell Oil Company	7	7	7	7	6	1,066	1,083	1,079	1,083	967
BP America	4	5	5	5	5	668	757	757	734	741
Star Enterprise	NF	3	3	3	3	NF	NF	615	615	615
Petroleos de Venezuela	(b)	(b)	(b)	(b)	3	(b)	(b)	(b)	(b)	479
Du Pont	6	`6	5	5	5	394	397	407	407	412
Citgo Petroleum	1	1	1	1	(b)	320	305	282	305	(b)
Fina	2	2	2	2	ž	145	165	165	165	199
Total Petroleum, Ltd	4	4	4	4	4	191	184	190	198	198
Salomon Inc./										
Hill Petroleum	3	NF	NF	NF	NF	156	NF	NF	NF	NF
Uno-Ven	NF	NF	1	1	1	NF	NF	147	147	147
Champlin Refining Co	1	1	1	1	(b)	155	130	130	130	(b)
Clark Oil & Refining	NF	2	2	2	2	NF	128	122	122	122
Pacific Resources	NF	NF	1	1	1	NF	NF	79	94	94
Tesoro Petroleum	NF	NF	i	· •	1	NF	NF	72	72	72
American Ultramar Ltd	(c)	1	1	1	1	(c)	65	69	66	68
Pacific Refining	NF	i	1	1	1	NF	55	55	55	55
Castle Energy	0	0	Ö	1	1	0	0	0	55	55
Sargent Holdings, Ltd	1	1	1	i	i	35	35	44	45	45
Seaview Petroleum	NF.	NF	NF	1	(b)	NF	NF	NF	44	(b)
Hondo Oil	1	2	1	1	1	23	52	30	28	30
Transworld Oil USA	o O	0	ò	i	1	0	0	0	14	13
Atlantic Petroleum	1	(d)	Ŏ	Ö	0	125	(d)	Ö	0	Ö
Fletcher Oil & Refining	i	(e)	ŏ	ő	Ö	30	(e)	0	0	Č
E-Z Serve Inc	i	(f)	ő	Ö	0	20	(f)	0	0	Č
MacMillan Ring-Free	•	(1)	Ū	· ·	Ū	20	(1)	·	·	
Oil Company	1	(g)	0	0	0	14	(g)	0	0	C
Total Foreign-Affiliated	34	36	37	40	39	3,342	3,971	4,243	4,379	4,312
Total United States	213	204	205	202	199	15,915	15,655	15,572	15,676	15,696
Percent Foreign-Affiliated	16.0	17.6	18.0	19.8	19.6	21.0	25.4	27.2	27.9	27.5

^aRefineries operable as of December 31st in each year.

Sources: Energy Information Administration, Petroleum Supply Annual, DOE/EIA-0340 (Washington, DC), 1987-1991.

^bIncluded under Petroleos de Venezuela beginning in 1991.

^cHanford, CA, refinery shutdown in 1987. Acquired Union Pacific's Wilmington, CA, refinery in 1988.

^dSold to Sun Co. in 1988

^eSold to Pauley Petroleum (Hondo Oil in 1990) in 1988.

^fShut down.

^gSold to Chemoil Corp. in 1988.

NF = No foreign affiliation during this period.

Table 11. Branded Retail Outlets and Total Gasoline Supplied by Foreign-Affiliated U.S. Companies, 1987-1991

Company	1987	1988	1989	1990	1991
		Total	Branded Retail (Outlets	
Citgo Petroleum ^a	7,458	7,697	8,463	9,734	11,319
Shell Oil Company	10,947	10,847	9,763	9,389	8,975
Star Enterprise	(b)	(p)	10,700	10,849	8,653
3P America	7,550	7,700	7,560	7,531	7,499
Ou Pont	5,918	4,843	4,915	4,659	4,612
Jno-Ven	(b)	(b)	3,550	2,950	3,257
Fina	4,117	3,458	3,177	3,136	2,919
Total Petroleum North America	1,968	2,564	2,719	2,698	2,776
Clark Oil and Refining	NF	946	944	937	887
Jitramar	300	350	350	400	390
esoro Petroleum Corp	NF	NF	0	132	100
Steuart Petroleum Company	NF	NF	0	68	67
lawaiian Independent Refinery	NF	NF	25	25	28
Atlantic Petroleum	940	0	0	0	0
Total for Foreign-Affiliated Companies	39,198	38,405	52,166	52,508	51,482
J.S. Total ^c	115,870	112,000	111,657	210,120	202,443
Foreign-Affiliated Companies as Percent of U.S. Total	33.8	34.3	46.7	25.0	25.4
			al Gasoline Suppusand barrels pe		
Total for Foreign-Affiliated Companies ^e	1,586	1,673	2,084	2,282	2,299
U.S. Total ^f	7,206	7,336	7,328	7,235	7,188
Foreign-Affiliated Companies as Percent of U.S. Total	22.0	22.8	28.4	31.5	32.0

^aJobber-supplied outlets.

Sources: Company station counts: National Petroleum News Factbook, 1988-1992 and Annual Reports to Shareholders, except for Du Pont (1990) for which data came from Du Pont Data 1990, and Star Enterprise (1990) for which data came from National Petroleum News (October 1991). U.S. total outlets: 1987-1988: U.S. Department of Commerce, Franchising in the Economy, 1987-1989 (Washington, DC, February 1989). 1989: National Petroleum News, 1990 Fact Book. 1990 and 1991: National Petroleum News (mid-June 1992). Company gasoline volumes: Energy Information Administration, Form EIA-782c. Total gasoline supplied: Energy Information Administration, Monthly Energy Review, December 1992, DOE/EIA-0035(92/12) (Washington, DC, December 1992).

^bNot in existence during this period. Star Enterprise operations began on January 1, 1989 and Uno-Ven operations began in December 1989.

^cFor 1987-1989, the total includes only service station establishments with 50 percent or more of their dollar volume from petroleum product sales. For 1990 and 1991 the total includes all establishments selling gasoline at retail.

^dGasoline Supplied refers to average daily gasoline shipments.

^eDisaggregated company numbers are considered proprietary by the Energy Information Administration.

¹Total gasoline supplied.

NF = No foreign affiliation during this period.

Table 12. Foreign Refinery Output and Capacity Statistics for FRS Companies and Foreign Industry, 1989-1991

Refinery Statistics	FRS Companies ^a	Foreign Industry ^a	FRS as Percent of Foreign industry
	(thousand be	arrels per day)	
989			
Refinery Capacity ^b	4,414	39,827	11.1
Refinery Output ^c		34,502	12.8
Percent Gasoline		21.0	17.4
Percent Distillate	39.8	37.7	13.5
Percent Other	31.7	41.3	9.8
990			
Refinery Capacity ^b	4,504	41,420	10.9
Refinery Output ^c		35,816	12.0
Percent Gasoline		21.1	17.1
Percent Distillate	40.5	38.1	12.8
Percent Other		40.8	8.7
1991			
Refinery Capacity ^{b,d}	4,968	42,598	11,7

^aForeign FRS and foreign industry data exclude operations in Puerto Rico and the U.S. Virgin Islands, as well as China and the former Soviet Bloc nations.

Source: FRS companies: Energy Information Administration, *Performance Profiles of Major Energy Producers 1991*, DOE/EIA-0206(91) (Washington, DC, December 1992). Foreign Industry: Energy Information Administration, *International Energy Annual 1990*, DOE/EIA-0219(90) (Washington, DC, November 1991) and Energy Information Administration, *International Energy Annual 1991*, DOE/EIA-0219(91) (Washington, DC, December 1992).

^bYear-end crude distillation capacity in thousand barrels per calendar day.

^cTotal output of refined products, for FRS companies, is total output at own refineries and refineries of others for own account. ^dForeign industry output data for 1991 are not available.

Note: Totals may not equal sum of components due to independent rounding.

Table 13. Bituminous Coal and Lignite Production and Source of Ownership of Foreign-Affiliated Coal Companies in the United States, 1987-1991

	Coal Production ^a						
Controlling Company/ Foreign-Ownership Interest	1987	1988	1989	1990	1991		
		(the	ousand short to	ns)			
Peabody Holding Co. (Hanson PLC) ^b	39,476	40,726	47,700	93,300	91,700		
JES Holding, Inc	52,500	54,900	53,500	54,600	55,200		
Royal Dutch/Shell	15,445	24,360	25,500	24,600	24,300		
Saarbergwerke AG/Carborex	3,950	4,800	7,000	10,700	12,200		
Veba Kohle International	9,654	10,000	10,800	11,700	11,600		
Broken Hill Proprietary Co	12,996	13,360	15,200	15,300	11,200		
Costain Group	6,200	6,677	5,885	7,800	7,900		
Andelex Resources, Inc	2,500	3,275	3,900	4,000	4,400		
Olympia and York, Ltd	NF	2,107	2,342	2,743	4,200		
Ente Nazionale Idrocarburi	0	2,652	3,119	3,101	3,700		
Steel Company of Canada	4,014	3,130	3,130	3,130	3,300		
Great Western Coal, Inc. Great Western Resources, Inc	2,564	2,911	3,374	2,969	3,000		
Hudson Bay Mining & Smelting Co Gulf Resources and Chemical	2,785	2,579	1,993	2,500	2,500		
HCI Holdings, Ltd./Private Investor Carter-Roag Coal Co.	1,938	1,426	1,709	2,192	1,800		
Marquard and Bahls Coal Co	387	588	540	604	754		
Algoma Steel, Ltd	4,054	4,054	4,536	5,393	NF		
British Petroleum	13,254	12,986	12,200	5,000	0		
Brascan Ltd	3,500	3,955	4,200	4,085	O		
Total Compagnie Francaise de Petroles	764	585	42	0	0		
anoma Coal Co., N.V. Pohang Steel America, Inc.	506	NF	NF	NF	NF		
Avery Coal Co. Trafalgar Industries	275	283	283	0	O		
Coal Corp. of American (Shaker Division) Campbell Resources	248	60	60	0	o		

See footnotes at end of table.

Table 13. Bituminous Coal and Lignite Production and Source of Ownership of Foreign-Affiliated Coal Companies in the United States, 1987-1991 (Continued)

	Coal Production ^a							
Controlling Company/ Foreign-Ownership Interest	1987	1988	1989	1990	1991			
		(th	ousand short t	ons)				
Enoxy Coal, Inc. ^f	 	,						
Ente Nazionale Idrocarburi	3,108	0	0	0	0			
Polysar Energy & Chemical	853	0	0	0	0			
Total Foreign-Affiliated	180,971	195,414	207,013	253,717	237,754			
Fotal United States	915,202	946,710	977,381	1,025,570	992,539			
Percent Foreign-Affiliated	19.8	20.6	21.2	24.7	24.0			

^aCoal production refers to lignite and bituminous coal production only.

¹Joint venture with Occidental Petroleum Corporation. The joint venture was dissolved in 1988.

Sources: Coal ownership: U.S. Securities and Exchange Commission Form 13-D; Moody's Industrial Manual, 1987-91; U.S. Department of Commerce, International Trade Administration, Foreign Direct Investment Activity in the United States. Coal company production data: 1991: 1993 Coal Mine Directory (Chicago, IL: Maclean Hunter Publishing Co., January 1993). 1990: 1992 Coal Mine Directory (Chicago, IL: Maclean Hunter Publishing Co., October 1991). 1989: Keystone News Bulletin (Stamford, CT: Maclean Hunter Publishing Co., June 1990). 1988: Keystone News Bulletin (Stamford, CT: Maclean Hunter Publishing Co., May 27, 1988). U.S. total for coal production: Energy Information Administration, Coal Production 1991, DOE/EIA-0118(91) (Washington, DC, October 1992).

^bIn 1990, Hanson PLC, a U.K. company, gained 100-percent ownership of Peabody Holding Company. For 1987-1989, only Newmont Mining's ownership share of Peabody's production is shown, which was 49.97 percent in 1987-1988 and 54.97 percent in 1989.

c1990 production from Inspiration Resources Corporation, 1990 Annual Report, p. 10.

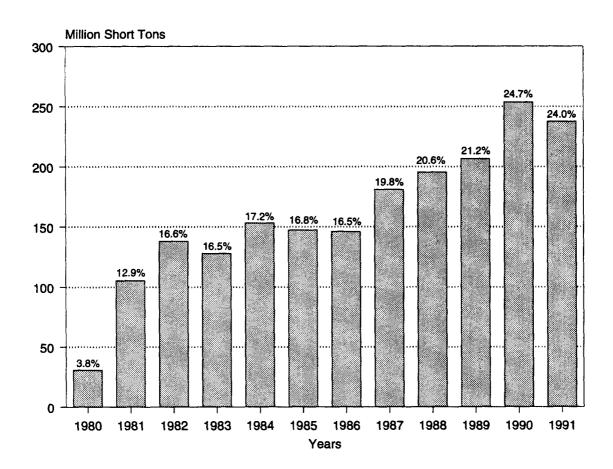
dAcquired by AMAX in 1991.

^eThe estimate of 1990 production was derived as follows: Mingo Logan (2,200 thousand tons of production according to Ashland Coal) was sold in January and remaining coal operations were sold in July. So, estimated production = (12,200 - 2,200)/2 = 5,000 thousand tons.

⁹U.S. coal operations were sold in 1988.

NF = No foreign affiliation during this period.

Figure 6. Production and Share of U.S. Total Bituminous Coal and Lignite for Foreign-Affiliated U.S. Companies, 1980-1991



Sources: 1981: Energy Information Administration, *Profiles of Foreign Direct Investment in U.S. Energy 1983*, DOE/EIA-0466 (Washington, DC, February 1985). 1982-1989: *Keystone Coal Industry Manual*, 1983-1990 Editions. 1990: 1992 Coal Mine Directory, (Chicago, IL: Maclean Hunter Publishing Co., October 1991). 1991: 1993 Coal Mine Directory (Chicago, IL: Maclean Hunter Publishing Co., January 1993). U.S. Totals: Energy Information Administration, *Coal Production 1991*, DOE/EIA-0118(91) (Washington, DC, October 1992).

Uranium Exploration and Development

U.S. uranium exploration and development expenditures contributed by foreign companies totaled \$3.5 million in 1991, a \$1-million increase over the 1990 level (Table 14). Total U.S. expenditures also rose in 1991, to \$17.8 million, up \$0.7 million from the 1990 level.

The increase in foreign contributions reflected increased participation in U.S. exploration efforts from the previous year by a few firms. Nevertheless, foreign investor interest in U.S. uranium exploration and development has fallen off substantially from the levels of the second half of the 1980's. During the 1986-1989 span, foreign affiliates accounted for 51 percent of U.S. uranium exploration and development expenditures.

Table 14. Foreign Participation in U.S. Uranium Exploration and Development, 1976-1991

Year	Exploration and Development Expenditures by Foreign Companies	Total U.S. Exploration and Development Expenditures	Tation and Expenditures as a Percent of U.S. Total of U.S.	Number of Foreign-Affiliated Companies
	(milli	on dollars)		
976	13.2	170.7	8	15
977	21.7	258.1	8	17
978	39.3	314.3	13	31
979		315.9	11	28
980	37.6	267.0	14	28
981	24.6	144.8	17	25
982	14.6	73.6	20	14
983	4.8	36.9	13	9
984	6.6	26.5	25	9
985	5.6	20.1	28	6
986	12.0	22.1	55	8
987	11.9	19.7	60	11
988	8.9	20.1	44	11
989	6.1	14.8	42	7
990	2.5	17.1	15	9
991	3.5	17.8	19	6

Source: Energy Information Administration, *Uranium Industry Annual 1991*, DOE/EIA-0478(91) (Washington, DC, October 1992), pp. 24, 25.

⁵⁶ Energy Information Administration, Uranium Industry Annual, DOE/EIA-0478(91) (Washington, DC, October 1992), p. 13.

Appendix

Completed Foreign Direct Investment Transactions, 1991

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Table A1. Completed Transactions by Size in the Petroleum Industry from January 1991
Through December 1991—Acquisitions and Divestitures

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
			Acquisitions			
Broken Hill Proprietary Co. (Australia)	Diversified energy, mining, manufacturing	Hamilton Oil Corp. (CO)	Oil and gas exploration and production	Equity acquisition	530.0	July
European Investors Capercaille Holdings, Inc.	Investment holdings	Reading and Bates Corp. (TX)	Drilling services	Equity acquisition	176.0	December
JES Co. Ltd. (Canada) Conoco Inc.	Integrated petroleum operations	Mesa Limited Partnership (TX)	Oil and gas exploration and production	Property acquisition	161.0	September
Petroleos de Venezuela S.A. (Venezuela) Citgo Petroleum Co.	Petroleum refining and marketing, products	Seaview Oil Co. (NJ)	Petroleum refining	Asset acquisition	100.0	March
Mitsubishi Corp. (Japan) Diamond Energy Inc.	Oil and gas exploration and production	Texas Meridian Resources Corp. (TX)	Oil and gas exploration and production	Asset acquisition	60.0	December
Pahison-Moller & Co. Ltd. (Canada) Nycal Corp.	Diversified holdings	Gulf USA Inc. (MA)	Oil and gas, real estate, coal	Equity acquisition	33.5	July
Schlumberger Ltd. (Canada)	Oilfield services, related technology	Sedco-Phillips Offshore Drilling Co.	Drilling services	Equity acquisition	21.0	February
Chieftain International Inc. (Canada)	Oil and gas exploration and production	Unidentified	Unidentified	Property acquisition	20.0	December
Royal Dutch/Shell Group (U.K., Netherlands) Shell Oil Co.	Integrated petroleum operations	Dekalb Energy Inc. (CO)	Oil and gas exploration and production	Property acquisition	15.9	August
Kelt Pic (United Kingdom) Kelt Energy Inc.	Oil and gas exploration and production	Santa Fe Energy Resources (TX)	Oil and gas exploration and production	Property acquisition	8.0	November
Friends Provident Life (United Kingdom) Presidio Oil Co.	Oil and gas exploration and production	Unidentified	Unidentified	Property acquisition	6.3	First Quarter
Caspen Oll Plc (United Kingdom) Caspen Oil Inc.	Oil and gas exploration and production	Unidentified	Unidentified	Property acquisition	5.2	Мау
Crusader Ltd. (Australia) Crusader Inc.	NA	C.A.B. Resources inc.	NA	Equity acquisition	5.0	June
Bridge Oll Ltd. (Australia) Bridge Oil Inc.	Oil and gas exploration and production	Southern Union Exploration Co. (TX)	Oil and gas exploration and production	Property acquisition	2.8	Third Quarter

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1991
Through December 1991—Acquisitions and Divestitures (Continued)

Size of

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Transaction (million dollars)	Date of Transaction
			 		-	
		Acqu	uisitions (Continued)			
Western Exploration Pty Ltd. (Australia) XCL Sunrise	Gas marketing and transport	Consolidated Fuel Corp.	NA	Equity acquisition	2.4	September
Pahison-Moller & Co. Ltd. (Canada) Nycal Corp.	Diversified holdings	Amber Resources Corp. (CO)	NA	Property acquisition	1.2	January
Royal Dutch/Shell Group (U.K., Netherlands) Shell Oil	Integrated petroleum operations	Apache Corp. (TX)	Oil and gas exploration and production	Property acquisition	0.5	March
Western Exploration Pty Ltd. (Australia) XCL Sunrise	Gas marketing and transport	SunPacific Energy Management Inc.	NA	Equity acquisition	0.4	October
Invest A.S. (Norway)	NA	Blue Dolphine Energy Co. (TX)	Oil and gas exploration and production	Equity acquisition	NA	March
Mitsubishi Corp. (Japan) Diamond Energy Operating Co.	Oil and gas development and production	Undisclosed	Undisclosed	Property acquisition	NA	January
Mitsubishi Corp. (Japan) Diamond Energy Operating Co.	Oil and gas development and production	Undisclosed	Undisclosed	Property acquisition	NA	Мау
JES Company Ltd. (Canada) Conoco Pipeline Co.	Integrated petroleum operations	Arco Oil and Gas Corp. (CA)	Integrated petroleum operations	Asset acquisition	NA	April
Government of Kuwait Exploration Co. of Louisiana Inc.	Oil and gas exploration and production	Terrenex Ventures Inc.	NA	Equity acquisition	NA	Мау
Aran Pic (United Kingdom) Aran Energy Corp.	Oil and gas exploration and production	Unocal Corp. (CA)	Integrated petroleum operations	Property acquisition	NA	September
Globe Petroleum PIc (United Kingdom)	Oil and gas development and production	Stevenson Holdings Inc.	NA	Equity acquisition	NA	Third Quarter
Aker Subsea A.S. (Norway) Aker Inc.	NA	Omega Marine Engineering	Marine services and supplies	Equity acquisition	NA	September

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1991
Through December 1991—Acquisitions and Divestitures (Continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
			Divestitures			
Unocal Corp.	Integrated petroleum operations	Royal Dutch/Shell Group (U.K., Netherlands) Shell Oil Co.	Integrated petroleum operations	Asset acquisition	400.0	December
Pacific Gas & Electric	Oil and gas production and marketing, electricity generation	British Petroleum Plc (United Kingdom) Tex/Con Oil & Gas	Oil and gas exploration and production	Asset acquisition	400.0	December
Sonat Inc.	Natural gas transmission and marketing, oil services	Sunshine Mining	Natural resource mining	Asset acquisition	150.0	January
Aquila Energy	Oil and gas exploration and production	Royal Dutch/Shell Group (U.K., Netherlands) Shell Oil Co.	Integrated petroleum operations	Property acquisition	54.8	December
Geodyne Resources Inc.	Oil and gas exploration and production	Broken Hill Proprietary Co. (Australia) BHP Petroleum (Americas) Inc.	Oil and gas exploration and production	Property acquisition	52.0	April
Municipal Gas Authority of Georgia	NA	British Petroleum Plc (United Kingdom) Tex/Con Oil & Gas	Oil and gas exploration and production	Property acquisition	22.4	April
Balboa Marine	Marine supplies and services, drilling	Mosvold Shipping (Norway)	NA	Asset acquisition	21.4	February
L.B. Simmons Energy	Oil and gas exploration and production	Broken Hill Proprietary Co. (Australia) BHP Petroleum (Americas) Inc.	Oil and gas exploration and production	Property acquisition	15.8	November
Kelt Energy Pic	Oil and gas exploration and production	Olympia & York (Canada) Santa Fe Energy Resources	Oil and gas exploration and production	Property acquisition	8.0	November
Pool Energy Service Co.	Oil and gas field services	New London Plc (United Kingdom) New London Inc.	Oil and gas exploration and production	Asset acquisition	7.7	January
Union Pacific Resources Co.	Oil and gas exploration and production, pipeline	Olympia & York (Canada) Santa Fe Minerals Holdings, Inc.	Natural resource mining, oil and gas production	Property acquisition	3.8	June
Home-Stake Royalty Corp.	Oil and gas exploration and production	Royal Dutch/Shell Group (U.K., Netherlands) Shell Oil Co.	Integrated petroleum operations	Property acquisition	NA	April

Table A1. Completed Transactions by Size in the Petroleum Industry from January 1991
Through December 1991—Acquisitions and Divestitures (Continued)

Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
		Dive	estitures (Continued)			
industrial Equity Pacific (Hong Kong)	Trading company, diversified holdings	Triton Energy Corp.	Oil and gas exploration and production	Equity disposition	NA	March
Bounty Group Inc.	NA	Norse Petroleum A/S (Norway)	Oil and gas exploration and production	Property acquisition	NA	April
Arco Oli & Gas Co.	Integrated petroleum operations	Royal Dutch/Shell Group (U.K., Netherlands) Shell Pipeline Corp.	Integrated petroleum operations	Equity acquisition	NA	March
Merit Energy	Oil and gas exploration and production	Ampol Exploration (Australia) Ampol Exploration (USA)	Oil and gas exploration and production	Property acquisition	NA	October
World Oil Properties	NA	Olympia & York (Canada) Santa Fe Energy Resources	Oil and gas exploration and production	Property acquisition	NA	September

NA = Not available. Source: See page 40.

Table A2. Completed Transactions by Size in the Coal Industry from January 1991
Through December 1991—Acquisitions and Divestitures

Th	rough December	1991—Acquisit	ions and Divest	itures		
Acquiring Company	Acquiring Company Activity	Affected Company	Affected Company Activity	Type of Transaction	Size of Transaction (million dollars)	Date of Transaction
			Acquisitions			
Rheinbraun AG (Germany)	Natural resource mining, electricity generation	Consolidation Coal Co. (PA)	Coal mining	Equity acquisition	570.0	December
Mitsubishi Corp. (Japan)	Diversified holdings	Orchard Valley Coal Corp. (CO)	Coal mining	Equity acquisition	2.9	July
Stinnis Intercarbon AG (Germany) Stinnis Coal Co. Inc.	Coal marketing	Westmoreland Coal Co. (PA)	Coal mining	Joint Venture	NA	February
			Divestitures		<u>.</u>	
Amex Coel Industries Inc.	Coal mining	Algoma Steel Corp. (Canada) Cannelton Holding Company	Coal mining	Equity acquisition	121.0	March
Grace Energy Company	Oil and gas exploration and production, coal mining	Royal Bank of Canada M.A. Hanna	Coal mining	Equity acquisition	34.2	October
Ross Harris	Coal operator, attorney	Hudson Bay Mining & Smelting Co. (Canada) Inspiration Resources	Agribusiness, construction materials	Asset acquisition	NA	December

NA = Not available. Source: See page 40.

Sources

Informational material used in compiling Tables A1 and A2:

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- Business Week, various issues.
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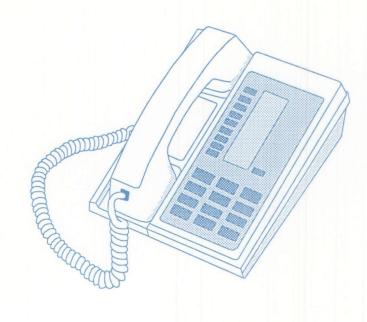
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